

National Climate Summary – Spring 2007:**Very windy mid spring, dry with significant soil moisture deficits at the end of the season**

- **Sunshine: One of the sunniest springs on record in Horowhenua, Wellington, Marlborough, and Nelson**
- **Rainfall: Below or near normal throughout New Zealand**
- **Soil moisture: Significant deficits in many regions at the end of the season**
- **Temperature: Near average everywhere**

Spring 2007 was a mixed bag! The season started with snowfall to low levels in the east of the South Island, followed by one of the windiest Octobers on record, and ended with a very dry November.

The season was one of the sunniest on record in Horowhenua, Wellington, Marlborough, and Nelson. It was also sunnier than normal in many areas from Canterbury to Southland.

Rainfall was below normal in many North Island regions, as well as much of Marlborough, Nelson, and along the south Canterbury to North Otago coast, and near normal elsewhere. Significant soil moisture deficits developed toward the end of October in parts of Marlborough and Central Otago and spread to Nelson and Canterbury in November. Significant deficits also developed in November in Bay of Plenty, Taupo, Gisborne, Hawke's Bay, Wanganui, and Wellington.

Mean temperatures were near average throughout the whole of New Zealand. The national average temperature of 11.9°C was 0.2°C below normal.

The overall spring climate pattern was dominated by more anticyclones in the Tasman Sea, with ridging extending over central New Zealand, producing more southerly quarter airflow than normal (although weak) over much of the country.

Major Highlights:

- The lowest air temperature during spring was -6.0°C recorded at Fairlie on 6 September and Hanmer on the 7 September. The highest temperature recorded during the spring was 32.8 °C recorded at Blenheim Airport on 25 November.
- There were relatively few high rainfall events – the worst being rainfall totalling 102 mm at Kaitaia on 19 September, surface flooding in the Hutt Valley on 7 October, and an overflow of the Waiiau River (in North Canterbury) on 8 October after days of rainfall. Heavy rainfall occurred in the central North Island, with 30 mm recorded at Ohakune in an hour on 17 October.
- Snowfall occurred to low levels in the east of the South Island on 4 September, and occurred in many high country areas over 2–7 October, 10–11, 14–15, and 17–18 October.
- Gale force events on 4 and 23 October resulted in fallen trees, broken power lines, and difficulty for motorists, in several regions of the country. Wind gusts over 130 km/h were recorded on 13 days in October.
- Of the five main centres, Auckland was the warmest, Wellington the wettest and sunniest, Christchurch the driest, and Dunedin the coolest this spring.

Rainfall: Spring rainfall was below normal in many North Island regions, including Waikato, Coromandel, Bay of Plenty, Taupo, Taranaki, and Hawke's Bay, as well as much of Marlborough, Nelson, and along the south Canterbury to North Otago coast. Rainfall was near normal elsewhere.

Temperature: Seasonal mean temperatures were near average throughout the whole of New Zealand.

Sunshine: Spring sunshine hours were above normal in Manawatu, Horowhenua, Wellington, and much of the north and east of the South Island from Nelson to Southland, and near normal elsewhere.

For further information, please contact:

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RAINFALL: BELOW NORMAL OVER MUCH OF THE NORTH ISLAND

Spring rainfall was less than 75 percent (three quarters) of normal in many North Island regions, including Waikato, Coromandel, Bay of Plenty, Taupo, Taranaki, and Hawke’s Bay. Seasonal rainfall was also less than 75 percent (three quarters) of normal in much of Marlborough, Nelson, and along the south Canterbury to North Otago coast. Rainfall was near normal elsewhere. No region recorded above normal rainfall.

Near or record low spring rainfall was recorded at:

Location	Spring 2007 rainfall (mm)	Percentage of normal	Year Records began	Comments
Whakatane Airport	136	49	1975	2 nd lowest
Rotorua Airport	191	56	1964	2 nd lowest
Taupo Airport	131	55	1976	Lowest
New Plymouth Airport	196	57	1944	2 nd lowest

TEMPERATURE: NEAR AVERAGE THROUGHOUT NEW ZEALAND

Seasonal mean temperatures were near average throughout the whole of New Zealand. The national average temperature of 11.9°C was 0.2°C below normal; the lowest for spring since 2003.

SUNSHINE: ABOVE NORMAL IN THE SOUTH OF THE NORTH ISLAND AND THE NORTH AND EAST OF THE SOUTH ISLAND

2007 was one of the sunniest springs on record in Horowhenua, Wellington, Marlborough, and Nelson. Sunshine hours and/or solar radiation were at least 110 percent of normal in Manawatu, Horowhenua, and much of the north and east of the South Island from Nelson to Southland. Sunshine hours were near normal elsewhere.

Near or record high spring sunshine was recorded at:

Location	Spring 2007 sunshine (hours)	Percentage of normal	Year Records began	Comments
Paraparaumu Airport	629	120	1953	3 rd highest
Wellington, Kelburn	661	118	1928	2 nd highest
Motueka, Riwaka	735	118	1965	2 nd highest
Nelson Airport	754	121	1948	2 nd highest
Blenheim Research	757	117	1985	2 nd highest

SPRING CLIMATE IN THE FIVE MAIN CENTRES

Of the five main centres, Auckland was the warmest, Wellington the wettest and sunniest, Christchurch the driest, and Dunedin the coolest. Spring temperatures were below average in Wellington and Christchurch, and near average in the three other main centres. Rainfall was below normal in Hamilton, and near normal in the

four other centres. Spring sunshine was well above normal in Wellington, Christchurch, and Dunedin, and near normal in the two other main centres.

Location	Spring Mean Temp. (°C)	Dep. from normal (°C)		Spring rainfall (mm)	% of normal		Spring Sunshine (hours)	% of normal	
Auckland ^a	14.5	+0.1	Near average	271	90	Near normal	529	102	Near normal
Hamilton	13.0	-0.2	Near average	206 ^b	69	Below normal	505	97	Near normal
Wellington	11.3	-0.7	Below average	284	90	Near normal	661	118	Well above normal
Christchurch ^c	11.1	-0.4	Below average	135	96	Near normal	662	115	Well above normal
Dunedin	10.9	+0.1	Near average	160	86	Near normal	542	124	Well above normal

a Mangere, b Hamilton Airport, c Christchurch Airport

HIGHLIGHTS AND EXTREME EVENTS

• Temperature

The lowest air temperature during spring was -6.0°C recorded at Fairlie on 6 September and Hanmer on the 7 September, following cold southerlies early in the month. A grass minimum of -10.9 °C was recorded at Mt Cook Village on 7 September and 11 September. The highest temperature recorded during the spring was 32.8 °C recorded at Blenheim Airport on 25 November. A hot spell affected the north and east of both islands between 20 and 26 November, with record high November temperatures recorded in many of areas.

• High rainfall

High rainfall totalled 102 mm at Kaitaia on 19 September. Surface flooding occurred in the Hutt Valley on 7 October, and days of high rainfall resulted in an overflow of the Waiiau River (in North Canterbury) on 8 October. Heavy rainfall occurred in the central North Island, with 30 mm recorded at Ohakune in an hour on 17 October.

• Snowfall

Snowfall to low levels in the east of the South Island on 4 September, settling in low lying parts of Canterbury (6-8cm) in and around Ashburton, Methven, and Geraldine. Snowfall occurred in many high country areas over 2-7 October, 10-11, 14-15, and 17-18 October.

• Strong winds

High winds from the west and northwest were more frequent than normal, with gale force events on 4 and 23 October resulting in fallen trees, broken power lines, and difficulty for motorists, in several regions. In the south, such high winds occur very infrequently. In fact, October 2007 was rather stormy and the equal 4th windiest October overall in regard to westerlies in measurements that commenced in 1966. Wind gusts over 130 km/h were recorded on 13 days (42%) in the month. In fact, many stations had at least 7 more days with strong winds (with gusts to 60 km/h or more) than is average for the time of year.

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