

Met Data summary for December 2011 and the annual summary for 2011 for the Blenheim Meteorological station located at the Grovetown Park campus of the Marlborough Research Centre.

Sunshine

167.4 hours sunshine for December 2011 is 68% of the long-term average for December of 246 hours. December recorded 78.6 hours less sunshine than average; or 2.5 hours less per day. This is the lowest sunshine total on record for December, for the 82 years 1930-2011. Previous lowest total was 179 hours recorded in December 1992.

December 2010 recorded 224.9 hours sunshine.

December 2009 recorded 264.2 hours sunshine.

The first three weeks of December (1-21st) recorded only 79.2 hours sunshine, or 47% of average.

The fourth week of December (22nd – 28th) recorded 88.2 hours sunshine, or 159% of average; i.e. one very sunny week in what was otherwise a very overcast month.

The final three days of December recorded no sunshine at all.

13 days during December recorded less than 1 hour of sunshine per day.

Nelson recorded 199 hours sunshine for December 2011, 31.6 hours more than Blenheim.

Rainfall

103.8 mm of rain for December 2011 is 221% of the long-term average for December of 47 mm.

December 2010 recorded 131.6 mm, the wettest December on record for Blenheim; 1930-2010.

December 2009 rainfall was 19.8 mm.

December 2011 is the 7th wettest December on record for Blenheim.

The 29th to 31st December 2011 recorded 70.4 mm rain, or 68% of the month's total rain.

Temperature

Mean temperature of 16.0°C for December 2011 was 0.7°C below the long-term average for December of 16.7°C.

December 2010 mean temperature was 18.2°C.

December 2011 is the coolest since December 2006 which recorded a mean temperature of 14.6°C.

Soil Moisture

Soil moisture in the top soil (5-35 cm) in Blenheim varied considerably during December. At the start of the month it was 22% and after rain on the 4th and 6th it rose to 28%. However, with dry weather from 7th to 28th soil moisture fell from 28% to 18%. After the 70.4 mm rain in the final three days of December soil moisture was boosted back up to 39% on the 31st; (the shallow soil was at about field capacity; i.e. unable to store any more moisture).

The boost to soil moisture will be well received by pastoral farmers and gardeners at a time in mid-summer when Marlborough is often in drought conditions.

Windrun

Average daily windrun for December was only 203.9 km, compared to the average of 306.6 km for December; i.e. average daily wind speed was 8.5 km/hr compared to the average of 12.8 km/hr. The least windy December on record for Blenheim for the 25 year period 1986-2011.

Evapotranspiration

Total potential evapotranspiration for December 2011 was 111.6 mm; compared to the average of 140 mm. This is the lowest December total on record for Blenheim for the period 1996-2011.

Evapotranspiration is a measure of potential water use by plants.

Annual Statistics for Blenheim, 2011 compared to the long term average

Sunshine

Total Sunshine for 2011 was 2358.3 hours. 96% of the long term average (1935-2000) = 2443 hours i.e. 84.7 hours less than the long term average.

Total sunshine for 2010 was 2415 hours.

Nelson recorded 2457.1 sunshine hours for 2011. Nelson's sunshine total for 2011 exceeded Blenheim's total by 98.8 hours. So Nelson was the sunniest town in New Zealand for 2011.

Whakatane recorded 2379.7 hours sunshine for 2011, 21.4 hours more than Blenheim.

Rainfall

Total Rainfall for 2011 was 698.4 mm. 108% of the long term average (1930-2000) of 647mm.

2010 rainfall was 825.4 mm. The 5th wettest year on record for Blenheim

2009 rainfall was 610 mm.

Temperature

Mean Temperature for 2011 was 13.2°C. Long term average (1932-2000) = 12.8°C

Mean Temperature for 2010 was 13.7°C. (2nd warmest year on record for Blenheim)

Mean Temperature for 2009 was 12.7°C.

Frosts

Blenheim recorded 58 ground frosts during 2011, compared to only 35 ground frosts in 2010

Average number of ground frosts for the period 1986 – 2008 is 52.

Windrun

2011 was a very calm year. 11 of the 12 months recorded below average windrun.

2011 was also the least windy year on record for the 25 year period 1986-2011