

**Table 1: Blenheim Weather Data – March 2005**

	March 2005	March LTA	Period of LTA	Deviation from or % of LTA	March 2004
Growing Degree Days for month	192.3	195.4	(1947-1978)	98%	155.9
Growing Degree Days Total from July onwards	1114.4	1154.1	(1947-1978)	96%	1148.2
Mean Maximum (°C)	21.4	21.8	(1932-1980)	-0.4°C	20.7
Mean Minimum (°C)	11.0	10.5	(1932-1980)	+0.5°C	9.3
Mean Temp (°C)	16.2	16.2	(1932-2000)	Equal	15.0
Grass Frosts (<= -1.0°C)	0	1.0 0.25	(1932-1980) (1986-2003)	-1	1
Air Frosts (0.0°C)	0	0.1 0.0	(1932-1980) (1986-2003)		0
Sunshine hours	202.9	215	(1930-2000)	94%	266.5
Sunshine hours – lowest		146.7	1980		
Sunshine hours – highest		281.0	1969		
Sunshine hours total - 2005	714.2	703	(1930-2000)	102%	695.2
Rainfall (mm)	76.8	46	(1930-2000)	167%	12.6
Rainfall (mm) – lowest		2.8	1969		
Rainfall (mm) – highest		118.0	1979		
Rainfall total (mm) – 2005	169.6	141	(1930-2000)	120%	161.4
Evapotranspiration – mm	89.6	100.0	(1996-2004)	90%	103.6
Avg. Daily Windrun (km)	243.8	270.9	(1996-2004)	90%	
Mean soil temp – 10cm	16.7	15.3	(1986-2004)	+0.6°C	14.8
Mean soil temp – 30cm	18.8	17.9	(1986-2004)	+0.9°C	17.2

March 2004 and March 2005 were very similar for the first 23 days of both months. However on 24 March 2005 the similarity ended.

**Table 2: Weekly weather comparison for March 2004 and March 2005**

	Rainfall (mm)		Sun (hrs)		Mean (°C)		Grass Min(°C)		Windrun (km)		GDD	
	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005
1 <sup>st</sup> – 23 <sup>rd</sup>	11.6	8.2	193.4	178.7	16.0	16.5	7.1	8.3	277.8	261.3	137.7	149.0
24 <sup>th</sup> – 31 <sup>st</sup>	1.0	68.6	72.6	24.0	12.2	15.4	3.2	10.2	281.0	193.7	18.1	43.3

March 2005 rainfall of 76.8mm was the highest March total since 1987, which recorded 83.6mm. The last eight days of March 2005 recorded 90 percent of the month's rainfall. As a consequence of the overcast wet weather, sunshine hours were very low, with three of those days recording no sunshine at all. This was in contrast to the last eight days of March 2004 that only recorded 1mm of rain and high sunshine hours. The low rainfall of only 12.6mm in March 2004 was extremely welcome after a very wet February with 123.8mm.

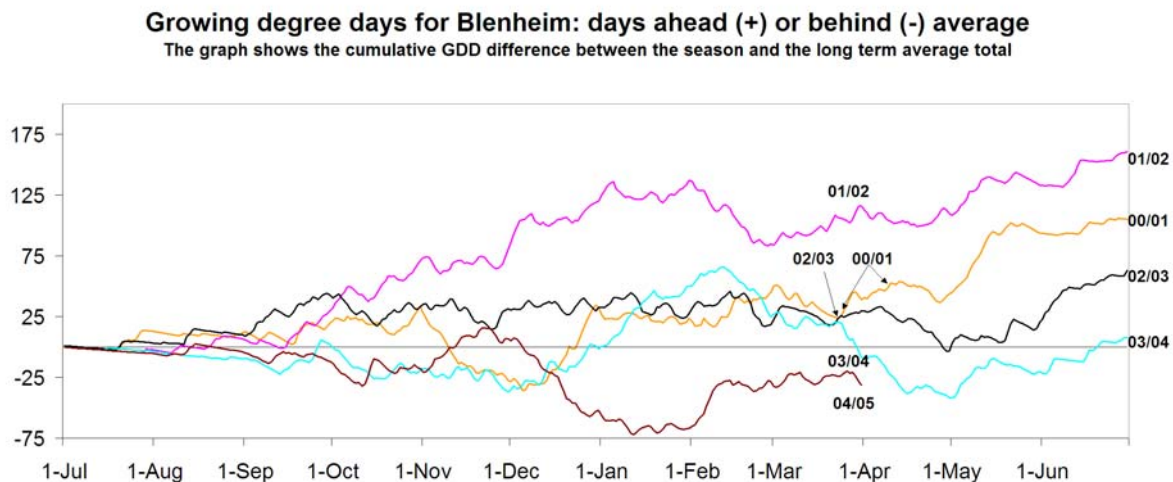
The final week of March 2004 was also 3.2°C cooler than March 2005. The clear skies and cool temperatures in the last week of March 2004 resulted in three nights that recorded grass minimum temperatures below zero. The final week of March 2004 dragged the overall average for the month down so that it was 1.2°C below the long-term average. In contrast March 2005 recorded an average temperature of 16.2°C, equal to the long-term average.

### **Rainfall and botrytis infection conditions**

If and when reasonable amounts of rainfall are received in the period from veraison to harvest then the best possible scenario is for the rainfall to clear quickly with fairly strong winds that are able to quickly dry out grape bunches within the canopy. These conditions minimise the chances of botrytis infection occurring. The rainfall at the end of March was spread over a number of days and there was little wind, giving rise to conditions suitable for botrytis infection. Fortunately the temperature was fairly cool during the period of wetness ensuring that progression of the botrytis

infection period was fairly slow. However low rainfall during February 2005 of only 27.6mm ensured that the grapes were free of botrytis prior to the last week of March. The fact that conditions suitable for botrytis infection occur does not mean that grapes will necessarily become infected. Modern canopy management that utilises leaf plucking to produce an open canopy ensures that bunches of grapes are able to dry quickly following rain. This greatly reduces the potential botrytis infection. Given good weather in early April 2005 we should expect good quality fruit to be harvested, albeit slightly later than average due to a cool start to the summer.

## Growing Degree Days



The graph of growing degree-days gives an update from when I last presented it two months ago at the end of January. With early February being very hot the GDD line for 04/05 rose sharply back towards the long-term average through zero. The latter half of February and March have proceeded with some weeks warmer than average and some cooler than average. The result being that the GDD line has remained slightly below the long-term average. (Remember that if the seasonal line is below the horizontal line through zero, that growing degree-days for the season are below average).

The steep rise in the GDD line in February 2005 is in contrast to the GDD lines for February 2002, 2003 and 2004, all of which recorded steep drops associated with cold weather. Late March until mid April 2004 was very cold resulting in the GDD line plummeting from above average to well below average. We would not want that to be repeated in April 2005 given the fact that the 2004/2005 season is behind all the other seasons shown on the graph.

The rise in all the GDD lines for May and June of the four seasons shown on the graph is an indication of the warmer than normal late autumn / early winter conditions that Blenheim has experienced over recent years.