



Weather INnovations Incorporated



January 2010: Temperature & Ice Wine Hours Summary

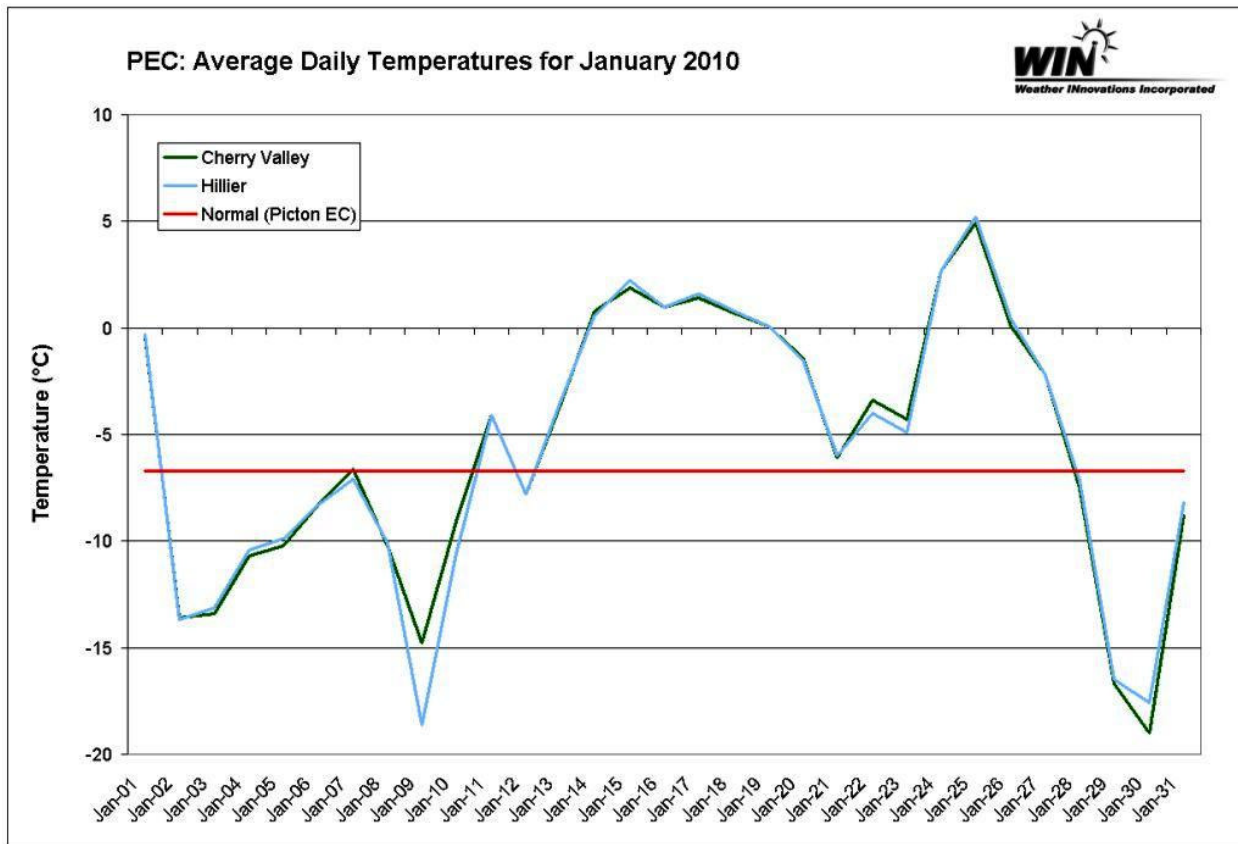
Prince Edward County

WIN Staff
February 11, 2010



OVERVIEW


January 2010 temperatures were warmer than normal in Prince Edward County, with an average monthly temperature of -5.4°C at Cherry Valley and -5.5°C at Hillier. Accordingly, the average monthly temperature at Cherry Valley was 1.3°C above-normal, while the average monthly temperature at Hillier was 1.2°C above-normal. These statistics are based on Environment Canada's 30-year normal for Picton. This summary illustrates minimum January 2010 temperatures, as well as the ice wine harvest opportunities that arose. For this report, ice wine hours are defined as instances when the average hourly temperature was between -8.0°C and -12.0°C , inclusive. Factors such as high average daily temperatures, prior to these ice wine hours, were not taken into account. Consequently, total ice wine hours reported may be higher than the number of hours that were *actually* suitable for ice wine harvesting.





TEMPERATURE ANALYSIS

The monthly minimum temperature for each site in January 2010 was -24.3°C at the Cherry Valley station and -27.1°C at the Hillier station. These monthly minimum temperatures occurred on the 9th and 30th of January. There were 18 days when temperatures, at one or more stations, dipped into ice wine temperature ranges. This is shown in the following figure.

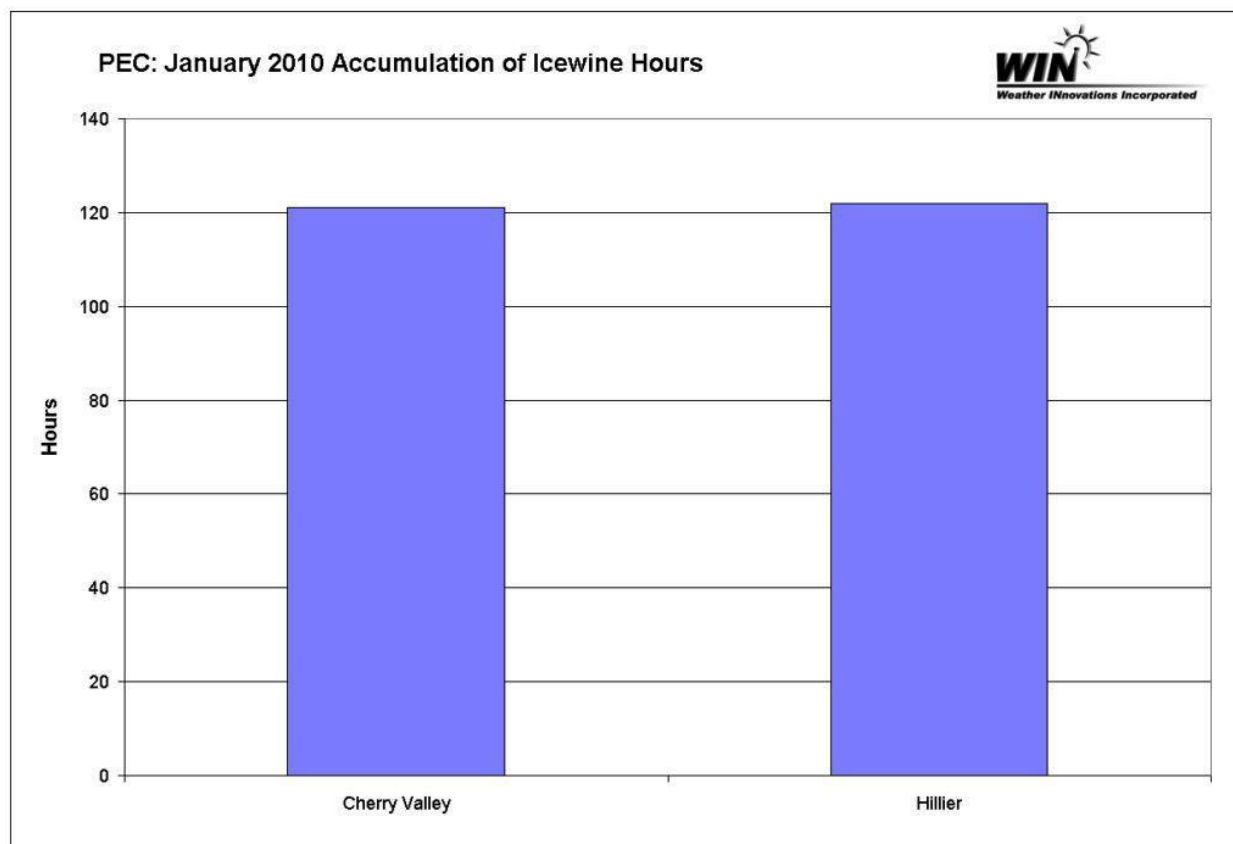
Date	Cherry Valley	Hillier
01-Jan	-6.5	-6.8
02-Jan	-15.8	-15.6
03-Jan	-16.5	-16.5
04-Jan	-12.7	-12.8
05-Jan	-14.9	-15
06-Jan	-12.7	-13.2
07-Jan	-9.2	-13.5
08-Jan	-11.8	-12.3
09-Jan	-19.8	-27.1
10-Jan	-19.4	-25.7
11-Jan	-6.2	-6.5
12-Jan	-10	-9.9
13-Jan	-10.6	-10.2
14-Jan	-1.8	-2.7
15-Jan	1	1.2
16-Jan	0.3	-0.6
17-Jan	0.6	0.8
18-Jan	-0.2	0.1
19-Jan	-2.5	-2.6
20-Jan	-2.7	-4.4
21-Jan	-9.4	-10.1
22-Jan	-6.6	-8.5
23-Jan	-8.6	-9.5
24-Jan	0.5	-2.3
25-Jan	0.8	0.9
26-Jan	-0.7	-0.4
27-Jan	-4.2	-4
28-Jan	-16.1	-16.1
29-Jan	-19.5	-19.1
30-Jan	-24.3	-22.6
31-Jan	-21.2	-19

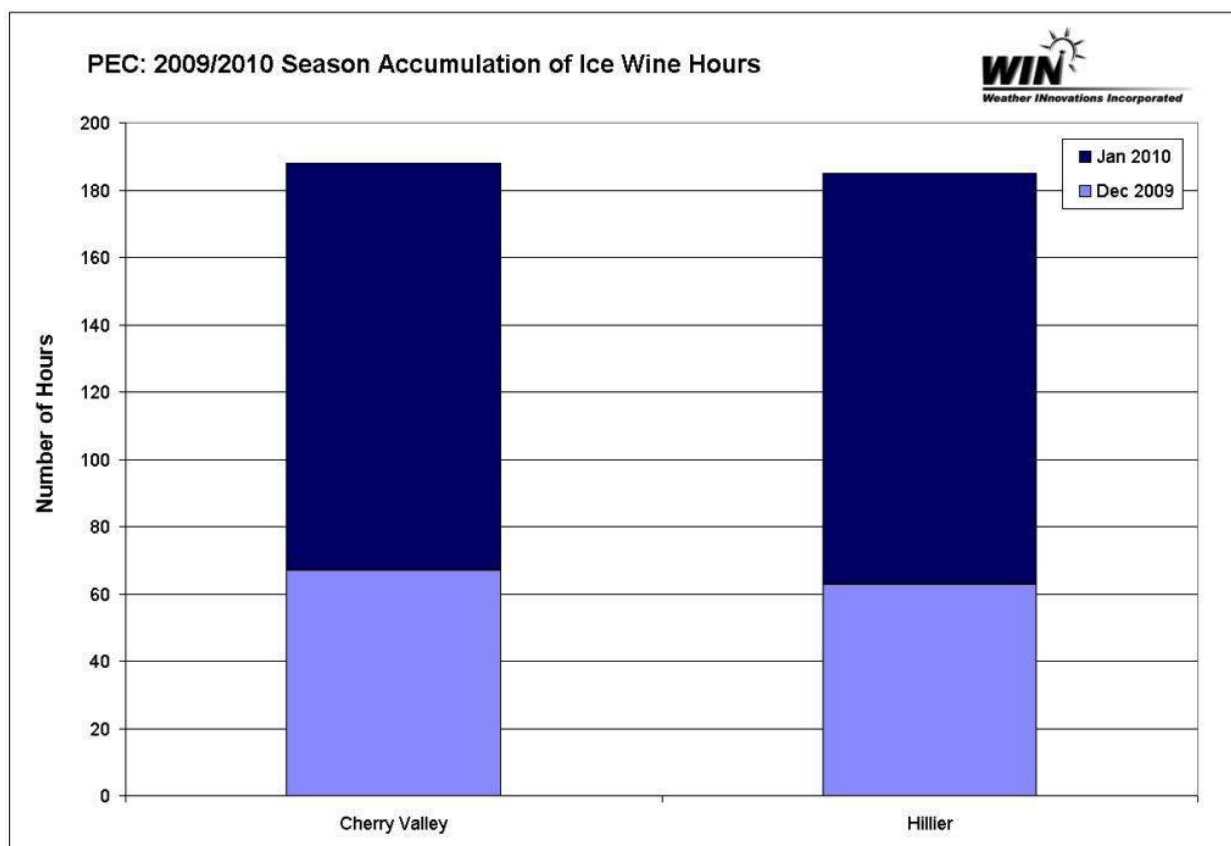
 Legend:

	Days with Ice Wine Temperatures
	Monthly Minimum

ICE WINE HOURS ANALYSIS

Both stations accumulated a similar number of ice wine hours in January 2010. The Cherry Valley station recorded 121 hours and the Hillier station recorded 122 hours. Cumulative ice wine hours recorded during December and January reached nearly 190 hours for both stations. Thus, there were a reasonable number of suitably cold hours for harvesting ice wine grapes this season. This is shown in the following figures.





The January ice wine hours accumulated during a number of ice wine “opportunities”, as outlined in the following tables. All of these hours may not have been suitable for grape harvesting, due to factors such as preceding warmer daily temperatures.

Date/ Time	Cherry Valley	Hillier
Possible Icewine Opportunity: Jan 1-6		
01/01/2010 23:00	-4.1	-4.4
01/02/2010 0:00	-5.9	-6.1
01/02/2010 1:00	-7.1	-7.6
01/02/2010 2:00	-8.7	-8.9
01/02/2010 3:00	-9.9	-10.7
01/02/2010 4:00	-11.1	-11.6
01/02/2010 5:00	-12	-12.5
01/02/2010 6:00	-12.9	-13.3
01/02/2010 7:00	-13.7	-14
01/02/2010 8:00	-14.4	-14.7
01/02/2010 9:00	-14.8	-15
01/02/2010 10:00	-14.6	-14.8
01/02/2010 11:00	-14.3	-14.9
01/02/2010 12:00	-14.7	-14.5
01/02/2010 13:00	-14.2	-14.2
01/02/2010 14:00	-14.5	-13.8
01/02/2010 15:00	-14.4	-14
01/02/2010 16:00	-14.4	-14
01/02/2010 17:00	-14.3	-14.4
01/02/2010 18:00	-14.7	-14.9
01/02/2010 19:00	-15.1	-15.2
01/02/2010 20:00	-14.8	-14.5
01/02/2010 21:00	-15	-14.9
01/02/2010 22:00	-15.1	-15.2
01/02/2010 23:00	-15.4	-15.4
01/03/2010 0:00	-15.7	-15.6
01/03/2010 1:00	-15.9	-16
01/03/2010 2:00	-16.2	-16
01/03/2010 3:00	-16.1	-16
01/03/2010 4:00	-16.1	-16
01/03/2010 5:00	-16.3	-16.3
01/03/2010 6:00	-16.5	-16.5
01/03/2010 7:00	-16.4	-16.4
01/03/2010 8:00	-16.2	-16.2
01/03/2010 9:00	-15.8	-15.5
01/03/2010 10:00	-15.1	-14.4
01/03/2010 11:00	-13.9	-13.1
01/03/2010 12:00	-13.1	-12.4
01/03/2010 13:00	-12.5	-11.6
01/03/2010 14:00	-11.8	-11.1
01/03/2010 15:00	-11.5	-10.8
01/03/2010 16:00	-11	-10.2



Legend:

	Ice Wine Temperatures
	Below Ice Wine Temperatures



Date/ Time	Cherry Valley	Hillier
01/03/2010 17:00	-10.5	-10.3
01/03/2010 18:00	-10.7	-10.6
01/03/2010 19:00	-10.9	-10.9
01/03/2010 20:00	-11	-10.8
01/03/2010 21:00	-11	-10.9
01/03/2010 22:00	-11	-10.9
01/03/2010 23:00	-11	-10.9
01/04/2010 0:00	-11.1	-11
01/04/2010 1:00	-11.2	-11.4
01/04/2010 2:00	-11.5	-11.5
01/04/2010 3:00	-11.6	-11.8
01/04/2010 4:00	-11.9	-11.8
01/04/2010 5:00	-12.1	-12
01/04/2010 6:00	-12.5	-12.2
01/04/2010 7:00	-12.6	-12.3
01/04/2010 8:00	-12.6	-12.5
01/04/2010 9:00	-12.6	-12.7
01/04/2010 10:00	-12.5	-12.5
01/04/2010 11:00	-12.1	-12.3
01/04/2010 12:00	-11.3	-10.8
01/04/2010 13:00	-10.7	-9.7
01/04/2010 14:00	-10.4	-9.7
01/04/2010 15:00	-10.4	-9.2
01/04/2010 16:00	-10	-8.9
01/04/2010 17:00	-9.6	-8.7
01/04/2010 18:00	-8.8	-8.6
01/04/2010 19:00	-8.3	-8
01/04/2010 20:00	-8.2	-7.9
01/04/2010 21:00	-8.4	-8.1
01/04/2010 22:00	-8.9	-8.4
01/04/2010 23:00	-9.1	-9.1
01/05/2010 0:00	-9.8	-10
01/05/2010 1:00	-10.7	-10.8
01/05/2010 2:00	-11.8	-11.5
01/05/2010 3:00	-13.6	-13
01/05/2010 4:00	-14.7	-14.6
01/05/2010 5:00	-13.5	-14.2
01/05/2010 6:00	-12.5	-12.4
01/05/2010 7:00	-11.7	-11.6
01/05/2010 8:00	-11.4	-11.1
01/05/2010 9:00	-11	-10.8
01/05/2010 10:00	-10.6	-10.3
01/05/2010 11:00	-9.9	-9.4



Legend:

	Ice Wine Temperatures
	Below Ice Wine Temperatures



Date/ Time	Cherry Valley	Hillier
01/05/2010 12:00	-9	-8.4
01/05/2010 13:00	-8.9	-8.3
01/05/2010 14:00	-9.1	-8.6
01/05/2010 15:00	-9.1	-8.5
01/05/2010 16:00	-9	-8.5
01/05/2010 17:00	-8.7	-8.5
01/05/2010 18:00	-8.8	-8.5
01/05/2010 19:00	-8.7	-8.3
01/05/2010 20:00	-8.5	-8
01/05/2010 21:00	-8.2	-7.9
01/05/2010 22:00	-8.1	-7.3
01/05/2010 23:00	-7.9	-7.7
01/06/2010 0:00	-8.6	-9.2
01/06/2010 1:00	-9.5	-10
01/06/2010 2:00	-10	-10.1
01/06/2010 3:00	-10	-10.2
01/06/2010 4:00	-10.3	-10.6
01/06/2010 5:00	-10.6	-10.8
01/06/2010 6:00	-11	-11.4
01/06/2010 7:00	-11.7	-12.4
01/06/2010 8:00	-12.3	-13
01/06/2010 9:00	-12.3	-12
01/06/2010 10:00	-10.4	-9.4
01/06/2010 11:00	-8.9	-8
01/06/2010 12:00	-7.6	-6.3
01/06/2010 13:00	-6.2	-5.5
01/06/2010 14:00	-6.4	-5.8
Possible Icewine Opportunity: Jan 7-10		
01/07/2010 15:00	-3.5	-2
01/07/2010 16:00	-3.8	-2
01/07/2010 17:00	-5.9	-7
01/07/2010 18:00	-7.8	-12.8
01/07/2010 19:00	-7.6	-13.1
01/07/2010 20:00	-8	-12.6
01/07/2010 21:00	-8.5	-11.2
01/07/2010 22:00	-7.4	-8.5
01/07/2010 23:00	-7.3	-8.2
01/08/2010 0:00	-8	-8.3
01/08/2010 1:00	-8.8	-8.9
01/08/2010 2:00	-9.5	-9.5
01/08/2010 3:00	-10.1	-9.8
01/08/2010 4:00	-10.3	-10
01/08/2010 5:00	-10.3	-10.2



Legend:

	Ice Wine Temperatures
	Below Ice Wine Temperatures



Date/ Time	Cherry Valley	Hillier
01/08/2010 6:00	-10.3	-10.3
01/08/2010 7:00	-10.4	-10.2
01/08/2010 8:00	-10.3	-10.6
01/08/2010 9:00	-10.3	-10.4
01/08/2010 10:00	-9.9	-9.7
01/08/2010 11:00	-9.7	-9.4
01/08/2010 12:00	-9.1	-9.1
01/08/2010 13:00	-9.3	-9.5
01/08/2010 14:00	-9.2	-9.4
01/08/2010 15:00	-9.3	-9.4
01/08/2010 16:00	-10	-10
01/08/2010 17:00	-10.7	-10.3
01/08/2010 18:00	-11.1	-10.4
01/08/2010 19:00	-10.9	-10.5
01/08/2010 20:00	-10.8	-10.8
01/08/2010 21:00	-10.8	-11.1
01/08/2010 22:00	-10.8	-10.5
01/08/2010 23:00	-10.7	-10.8
01/09/2010 0:00	-11.3	-11.8
01/09/2010 1:00	-12.7	-13.5
01/09/2010 2:00	-14	-16.8
01/09/2010 3:00	-15	-21.8
01/09/2010 4:00	-15.7	-23.5
01/09/2010 5:00	-16.2	-24.9
01/09/2010 6:00	-17.5	-25.9
01/09/2010 7:00	-18.3	-26.5
01/09/2010 8:00	-19.6	-27
01/09/2010 9:00	-17.6	-21.4
01/09/2010 10:00	-15.1	-15.1
01/09/2010 11:00	-14.3	-14.6
01/09/2010 12:00	-13.4	-13.1
01/09/2010 13:00	-12.5	-11.6
01/09/2010 14:00	-11.2	-10.5
01/09/2010 15:00	-10.6	-9.4
01/09/2010 16:00	-10.2	-9.1
01/09/2010 17:00	-11.2	-11.1
01/09/2010 18:00	-14.2	-19.2
01/09/2010 19:00	-14.7	-21.9
01/09/2010 20:00	-14.4	-22.8
01/09/2010 21:00	-16.1	-23.4
01/09/2010 22:00	-16.3	-23.4
01/09/2010 23:00	-16.5	-21.6
01/10/2010 0:00	-17.6	-18.5



Legend:

	Ice Wine Temperatures
	Below Ice Wine Temperatures



Date/ Time	Cherry Valley	Hillier
01/10/2010 1:00	-18.6	-23.3
01/10/2010 2:00	-17.6	-24.6
01/10/2010 3:00	-19	-25
01/10/2010 4:00	-18.9	-25.5
01/10/2010 5:00	-19.1	-25.5
01/10/2010 6:00	-18.1	-20.5
01/10/2010 7:00	-16.9	-17.2
01/10/2010 8:00	-16.5	-16.3
01/10/2010 9:00	-15.1	-14.6
01/10/2010 10:00	-11.5	-11.7
01/10/2010 11:00	-8.3	-6.9
01/10/2010 12:00	-4.7	-4.1
01/10/2010 13:00	-3.6	-3
01/10/2010 14:00	-3.3	-3
Possible Icewine Opportunity: Jan 12-13		
01/12/2010 6:00	-7.8	-7.5
01/12/2010 7:00	-7.9	-7.7
01/12/2010 8:00	-8.3	-8.5
01/12/2010 9:00	-8.4	-8.8
01/12/2010 10:00	-7.6	-7.6
01/12/2010 11:00	-7.3	-7.6
01/12/2010 12:00	-7.5	-7.9
01/12/2010 13:00	-7.6	-7.7
01/12/2010 14:00	-7.4	-7.1
01/12/2010 15:00	-7.2	-6.4
01/12/2010 16:00	-7.1	-6.8
01/12/2010 17:00	-7.9	-7.8
01/12/2010 18:00	-8.1	-9.4
01/12/2010 19:00	-7.6	-8.3
01/12/2010 20:00	-8.3	-8.9
01/12/2010 21:00	-9	-9.3
01/12/2010 22:00	-9.6	-9.1
01/12/2010 23:00	-9.8	-8.8
01/13/2010 0:00	-9.6	-9.2
01/13/2010 1:00	-9.9	-9.5
01/13/2010 2:00	-9.9	-9.8
01/13/2010 3:00	-9.9	-9.3
01/13/2010 4:00	-8.9	-8.7
01/13/2010 5:00	-8.5	-8.2
01/13/2010 6:00	-8.2	-7.8
01/13/2010 7:00	-7.9	-7.5
01/13/2010 8:00	-7.4	-7.3
01/13/2010 9:00	-5.8	-6.4



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Legend:

	Ice Wine Temperatures
	Below Ice Wine Temperatures




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Date/ Time	Cherry Valley	Hillier
Possible Icewine Opportunity: Dec 21		
01/21/2010 2:00	-5.1	-6
01/21/2010 3:00	-5.9	-6.8
01/21/2010 4:00	-7	-7.7
01/21/2010 5:00	-8.1	-8.6
01/21/2010 6:00	-8.6	-9.1
01/21/2010 7:00	-9.2	-9.5
01/21/2010 8:00	-8.7	-10
01/21/2010 9:00	-7.8	-9.2
01/21/2010 10:00	-6.7	-8
01/21/2010 11:00	-4.9	-6.3
01/21/2010 12:00	-2.9	-4.2
Possible Icewine Opportunity: Jan 23		
01/23/2010 3:00	-7.5	-7.5
01/23/2010 4:00	-7.8	-7.9
01/23/2010 5:00	-8.3	-8.2
01/23/2010 6:00	-8.4	-8.7
01/23/2010 7:00	-8.5	-9.2
01/23/2010 8:00	-8.4	-9.5
01/23/2010 9:00	-6.8	-8.5
01/23/2010 10:00	-4.5	-6.2
01/23/2010 11:00	-4.2	-4.4
Possible Icewine Opportunity: Jan 28-31		
01/28/2010 12:00	-6	-5
01/28/2010 13:00	-6.3	-5.5
01/28/2010 14:00	-6.6	-6.4
01/28/2010 15:00	-8.3	-7.9
01/28/2010 16:00	-8.4	-7.9
01/28/2010 17:00	-9.8	-9.6
01/28/2010 18:00	-10.7	-10.7
01/28/2010 19:00	-11.5	-11.5
01/28/2010 20:00	-12.2	-12.3
01/28/2010 21:00	-13.2	-13.5
01/28/2010 22:00	-14.2	-14.6
01/28/2010 23:00	-15.3	-15.4
01/29/2010 0:00	-15.9	-15.9
01/29/2010 1:00	-16.5	-16.5
01/29/2010 2:00	-16.8	-17.1
01/29/2010 3:00	-17.2	-17.6
01/29/2010 4:00	-17.6	-18
01/29/2010 5:00	-18	-18.2
01/29/2010 6:00	-18.4	-18.3
01/29/2010 7:00	-18.8	-18.6

Legend:

	Ice Wine Temperatures
	Below Ice Wine Temperatures


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Date/ Time	Cherry Valley	Hillier
01/29/2010 8:00	-19.1	-19
01/29/2010 9:00	-18.5	-18.1
01/29/2010 10:00	-17.2	-17
01/29/2010 11:00	-16.1	-15.8
01/29/2010 12:00	-15.6	-15
01/29/2010 13:00	-15	-14.1
01/29/2010 14:00	-14.4	-13.3
01/29/2010 15:00	-13.9	-13.1
01/29/2010 16:00	-13.8	-13.1
01/29/2010 17:00	-14.3	-14.1
01/29/2010 18:00	-15.1	-15.3
01/29/2010 19:00	-15.8	-15.9
01/29/2010 20:00	-16.2	-16.1
01/29/2010 21:00	-16.8	-16.9
01/29/2010 22:00	-17.8	-17.6
01/29/2010 23:00	-18.5	-18.4
01/30/2010 0:00	-19.2	-19
01/30/2010 1:00	-20	-19.5
01/30/2010 2:00	-21.2	-20.2
01/30/2010 3:00	-21.8	-20.6
01/30/2010 4:00	-23.5	-21.9
01/30/2010 5:00	-23.2	-21.8
01/30/2010 6:00	-23.7	-21.1
01/30/2010 7:00	-23.4	-21.4
01/30/2010 8:00	-23.6	-21.3
01/30/2010 9:00	-21	-19.7
01/30/2010 10:00	-19.1	-18.2
01/30/2010 11:00	-17.4	-16.6
01/30/2010 12:00	-14.4	-14.3
01/30/2010 13:00	-13.8	-13.3
01/30/2010 14:00	-13.4	-12.9
01/30/2010 15:00	-12	-11.1
01/30/2010 16:00	-12.5	-10.6
01/30/2010 17:00	-13	-12
01/30/2010 18:00	-15.7	-15.4
01/30/2010 19:00	-18.8	-18
01/30/2010 20:00	-20.7	-18.6
01/30/2010 21:00	-21.3	-18.9
01/30/2010 22:00	-20.9	-18.6
01/30/2010 23:00	-20.1	-18.8
01/31/2010 0:00	-20.9	-18.8
01/31/2010 1:00	-19.3	-18.9
01/31/2010 2:00	-18	-18.8



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Legend:

	Ice Wine Temperatures
	Below Ice Wine Temperatures



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Date/ Time	Cherry Valley	Hillier
01/31/2010 3:00	-20	-18.6
01/31/2010 4:00	-21	-18
01/31/2010 5:00	-19.1	-17.8
01/31/2010 6:00	-15.7	-17.4
01/31/2010 7:00	-10.7	-12.6
01/31/2010 8:00	-7.9	-8.5
01/31/2010 9:00	-8.1	-6.6
01/31/2010 10:00	-6.1	-5.4
01/31/2010 11:00	-4.7	-4.7
01/31/2010 12:00	-4.4	-3.6


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Legend:

	Ice Wine Temperatures
	Below Ice Wine Temperatures

SUMMARY

January 2010 temperatures were above normal; average temperatures for the month were 1.2°C to 1.3°C above the 30-year normal for Picton. There were 18 days when temperatures, at one or more stations, dipped into ice wine temperature ranges. The coldest January event took place on the 9th of January, reaching -27.1°C at the Hillier station. These conditions provided a reasonable number of suitable hours for grape harvesting for ice wine.