



Weather INnovations Incorporated



January 2010: Temperature & Ice Wine Hours Summary

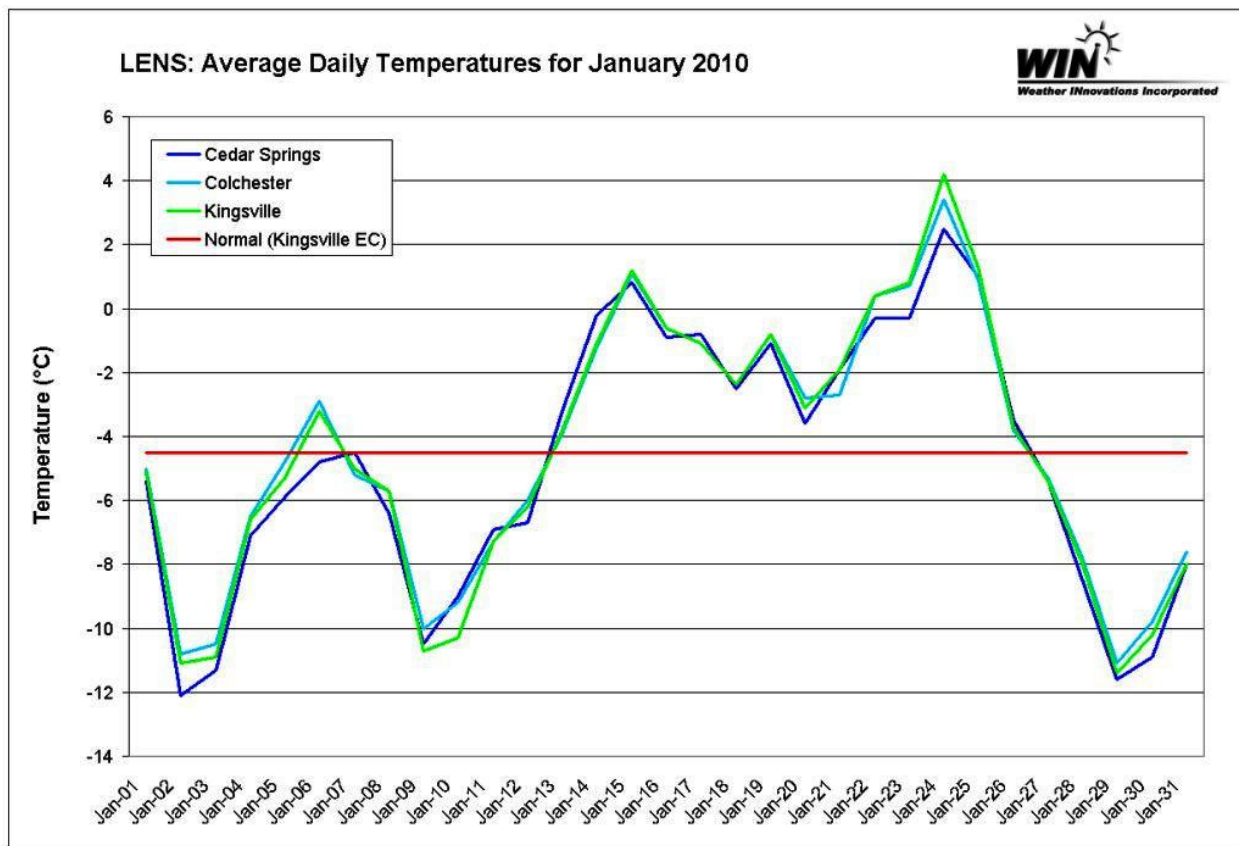
Lake Erie North Shore

WIN Staff
February 12, 2010



OVERVIEW

January 2010 temperatures were very close to normal in the Lake Erie North Shore appellation. In fact, the average monthly temperature at the Cedar Springs location was only 0.3°C below-normal, while average monthly temperatures at Colchester and Kingsville were equal to normal! These statistics are based on Environment Canada's 30-year normal for Kingsville. Consequently, this appellation has experienced two consecutive months of normal winter temperatures. 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: -15.4°C at the Cedar Springs station; -17.9°C at the Colchester station and -18.9°C at the Kingsville station. These monthly minimum temperatures occurred on the 3rd and 9th of January. There were 15 days when temperatures, at one or more stations, dipped into ice wine temperature ranges. This is shown in the following figure.

LENS: January 2010 Daily Minimums

| Date | Cedar Springs | Colchester | Kingsville |
|--------|---------------|------------|------------|
| 01-Jan | -9.5 | -8.4 | -8.4 |
| 02-Jan | -15.1 | -14.2 | -14.2 |
| 03-Jan | -15.4 | -15 | -15.2 |
| 04-Jan | -8.3 | -7.7 | -7.8 |
| 05-Jan | -7.1 | -6.5 | -7.9 |
| 06-Jan | -5.4 | -3.5 | -3.7 |
| 07-Jan | -5.6 | -6.6 | -6 |
| 08-Jan | -8.8 | -8.5 | -8.9 |
| 09-Jan | -14.7 | -17.9 | -18.9 |
| 10-Jan | -15 | -14.6 | -18.2 |
| 11-Jan | -9.3 | -11 | -9.9 |
| 12-Jan | -9.6 | -10.8 | -10 |
| 13-Jan | -5.8 | -5.6 | -5.4 |
| 14-Jan | -2.1 | -4.1 | -5.1 |
| 15-Jan | -0.1 | 0.1 | 0.2 |
| 16-Jan | -1.5 | -1.2 | -1.2 |
| 17-Jan | -2 | -1.9 | -2.1 |
| 18-Jan | -4.2 | -4.6 | -4.4 |
| 19-Jan | -2.5 | -1.4 | -1.5 |
| 20-Jan | -7.5 | -7.2 | -7.1 |
| 21-Jan | -7.5 | -9.2 | -7 |
| 22-Jan | -1.3 | -0.6 | -0.6 |
| 23-Jan | -1.8 | 0 | 0 |
| 24-Jan | 1.6 | 2.1 | 2.3 |
| 25-Jan | -1.1 | -1.1 | -0.9 |
| 26-Jan | -4.8 | -5.4 | -5.3 |
| 27-Jan | -8.5 | -8.6 | -8.7 |
| 28-Jan | -13.3 | -12.7 | -13 |
| 29-Jan | -14.9 | -14.6 | -15.1 |
| 30-Jan | -14 | -12.7 | -14 |
| 31-Jan | -13.7 | -12.8 | -14.2 |

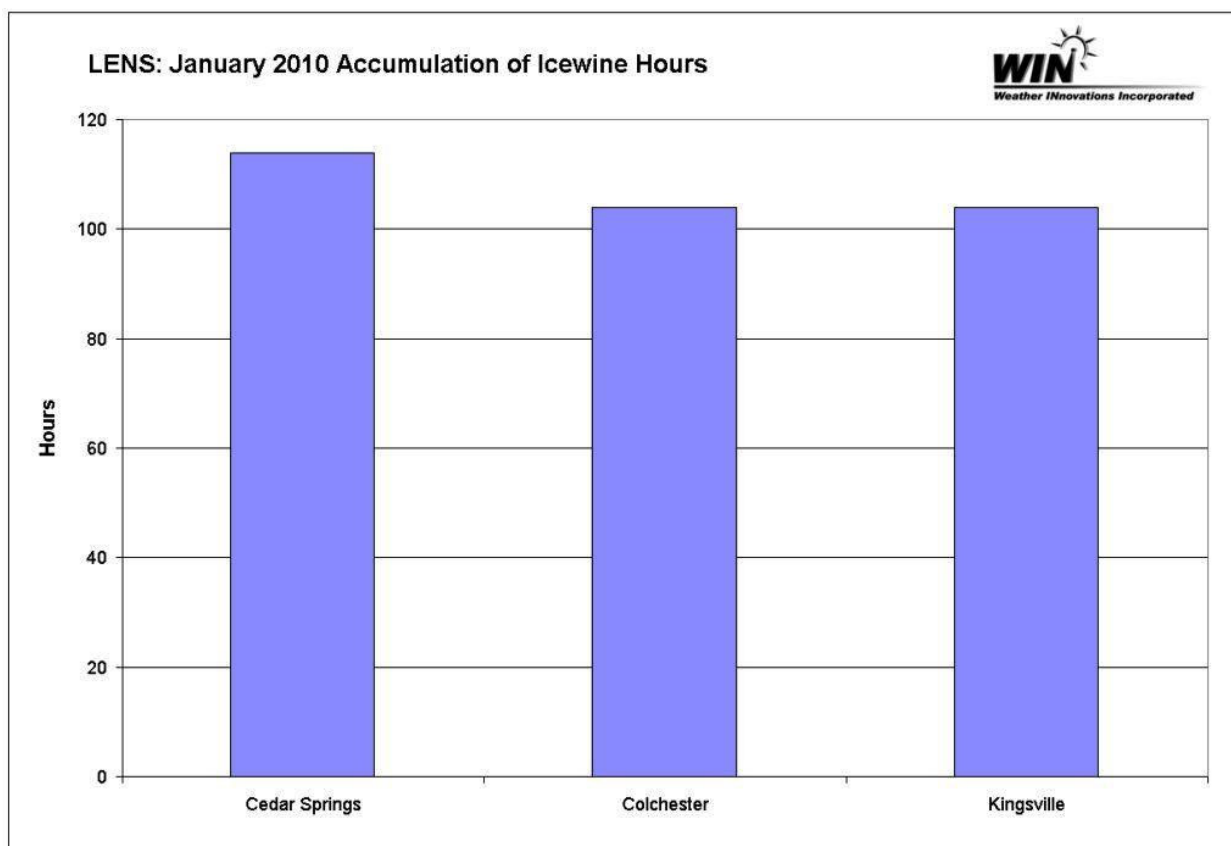


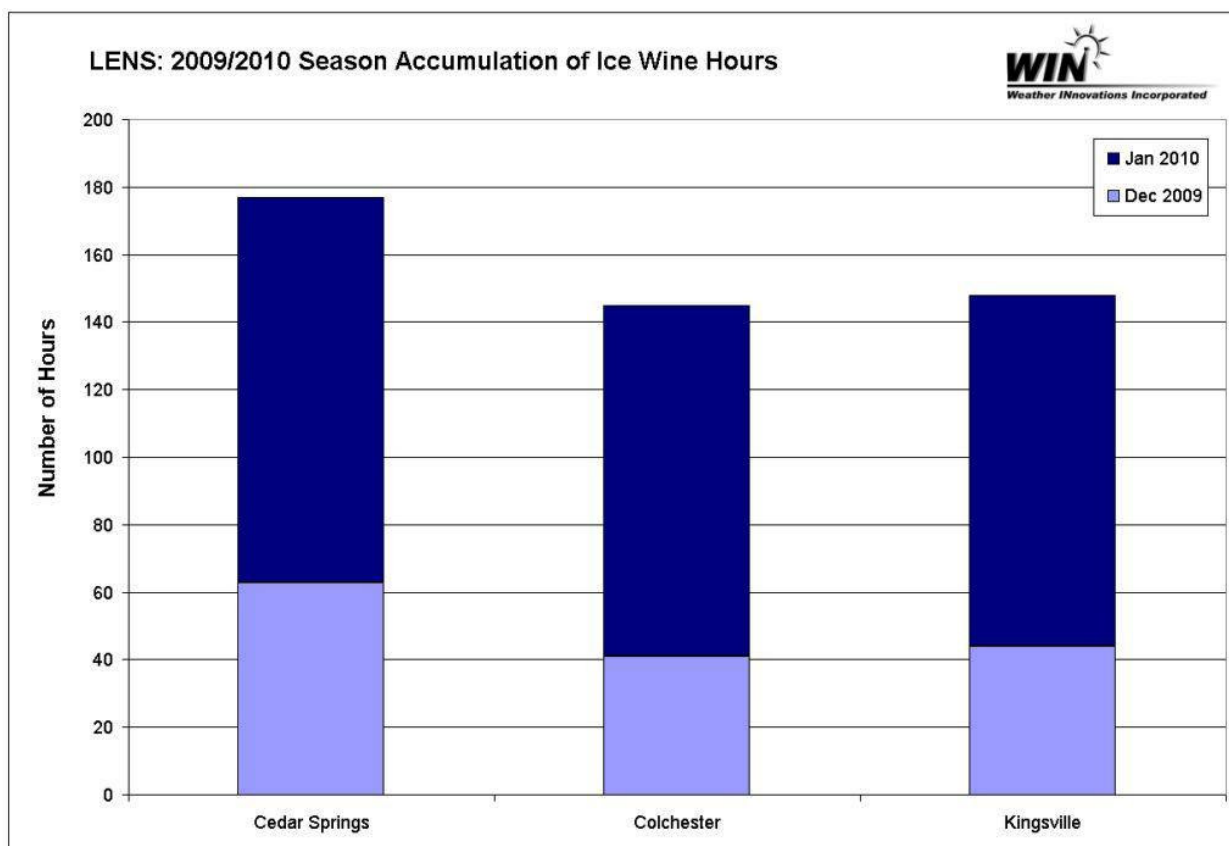
Legend:

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|--|---------------------------------|
| | Days with Ice Wine Temperatures |
| | Monthly Minimum |

ICE WINE HOURS ANALYSIS

The Cedar Springs location accumulated a greater number of ice wine hours than Colchester and Kingsville in January 2010. A total of 114 ice wine hours were recorded at this station, while the Colchester and Kingsville stations both recorded 104 hours. Cumulative ice wine hours recorded during December and January reached 177 hours for Cedar Springs, 145 for Colchester and 148 for Kingsville. Thus, there were a reasonable number of suitably cold hours at each location for harvesting ice wine grapes during the 2009/2010 season.





The January ice wine hours, accumulated during a number of ice wine “opportunities”, are 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 | Cedar Springs | Colchester | Kingsville |
|--------------------------------------|---------------|------------|------------|
| Ice Wine Opportunity: Jan 1-3 | | | |
| 01/01/2010 19:00 | -7.4 | -5.9 | -5.8 |
| 01/01/2010 20:00 | -7.7 | -6.1 | -6.1 |
| 01/01/2010 21:00 | -8 | -6.5 | -6.8 |
| 01/01/2010 22:00 | -8.5 | -6.9 | -7.3 |
| 01/01/2010 23:00 | -8.8 | -7.5 | -7.8 |
| 01/02/2010 0:00 | -9.2 | -8.1 | -8.2 |
| 01/02/2010 1:00 | -9.6 | -8.8 | -9 |
| 01/02/2010 2:00 | -9.9 | -9.4 | -9.3 |
| 01/02/2010 3:00 | -10.3 | -9.8 | -9.9 |
| 01/02/2010 4:00 | -10.6 | -10.2 | -10.2 |
| 01/02/2010 5:00 | -11 | -10.6 | -10.5 |
| 01/02/2010 6:00 | -11 | -10.4 | -10.7 |
| 01/02/2010 7:00 | -11.5 | -9.6 | -10.2 |
| 01/02/2010 8:00 | -11.6 | -9.5 | -9.9 |
| 01/02/2010 9:00 | -11.9 | -9.7 | -10.1 |
| 01/02/2010 10:00 | -11.9 | -9.9 | -10.1 |
| 01/02/2010 11:00 | -11.8 | -9.9 | -10.4 |
| 01/02/2010 12:00 | -11.4 | -9.8 | -10.6 |
| 01/02/2010 13:00 | -11.4 | -9.8 | -10.5 |
| 01/02/2010 14:00 | -11.3 | -9.8 | -10.4 |
| 01/02/2010 15:00 | -11.4 | -9.8 | -10.3 |
| 01/02/2010 16:00 | -11.5 | -10.2 | -10.5 |
| 01/02/2010 17:00 | -12.4 | -10.7 | -11 |
| 01/02/2010 18:00 | -13.4 | -11.8 | -12 |
| 01/02/2010 19:00 | -14.1 | -12.5 | -12.6 |
| 01/02/2010 20:00 | -14.3 | -12.7 | -13 |
| 01/02/2010 21:00 | -14.4 | -13.1 | -13.2 |
| 01/02/2010 22:00 | -14.6 | -13.1 | -13.7 |
| 01/02/2010 23:00 | -14.8 | -13.4 | -13.6 |
| 01/03/2010 0:00 | -15 | -14 | -14 |
| 01/03/2010 1:00 | -15.2 | -14.4 | -14.6 |
| 01/03/2010 2:00 | -15.3 | -14.8 | -14.9 |
| 01/03/2010 3:00 | -15.1 | -14.9 | -15 |
| 01/03/2010 4:00 | -14.9 | -14.8 | -15.1 |
| 01/03/2010 5:00 | -14.6 | -14.9 | -15 |
| 01/03/2010 6:00 | -14.5 | -15 | -15.1 |
| 01/03/2010 7:00 | -14.3 | -15 | -15.1 |
| 01/03/2010 8:00 | -14.1 | -14.8 | -14.9 |
| 01/03/2010 9:00 | -13.7 | -14.5 | -14.6 |
| 01/03/2010 10:00 | -13.1 | -13.3 | -13.6 |
| 01/03/2010 11:00 | -11.9 | -11.9 | -12.1 |
| 01/03/2010 12:00 | -10.8 | -10.3 | -11 |



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Legend:

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|--|-----------------------------|
| | Ice Wine Temperatures |
| | Below Ice Wine Temperatures |



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| Date/Time | Cedar Springs | Colchester | Kingsville |
|---------------------------------------|---------------|------------|------------|
| 01/03/2010 13:00 | -10.3 | -8.8 | -9.6 |
| 01/03/2010 14:00 | -9.7 | -7.4 | -8.3 |
| 01/03/2010 15:00 | -9.4 | -7 | -7.6 |
| 01/03/2010 16:00 | -8.9 | -6.7 | -7.7 |
| 01/03/2010 17:00 | -8.8 | -6.8 | -7.7 |
| 01/03/2010 18:00 | -8.8 | -6.6 | -7.4 |
| 01/03/2010 19:00 | -8.5 | -6.6 | -7.2 |
| 01/03/2010 20:00 | -7.9 | -6.5 | -6.8 |
| 01/03/2010 21:00 | -7.6 | -6.4 | -6.7 |
| Ice Wine Opportunity: Jan 4 | | | |
| 01/03/2010 23:00 | -7.7 | -6.8 | -6.8 |
| 01/04/2010 0:00 | -7.9 | -6.9 | -7 |
| 01/04/2010 1:00 | -8.2 | -7 | -7.2 |
| 01/04/2010 2:00 | -8.2 | -7.2 | -7.4 |
| 01/04/2010 3:00 | -8.2 | -7.3 | -7.4 |
| 01/04/2010 4:00 | -8 | -7.3 | -7.3 |
| 01/04/2010 5:00 | -8.2 | -7.4 | -7.4 |
| 01/04/2010 6:00 | -8.2 | -7.4 | -7.5 |
| 01/04/2010 7:00 | -8.2 | -7.6 | -7.7 |
| 01/04/2010 8:00 | -8 | -7.6 | -7.8 |
| 01/04/2010 9:00 | -7.9 | -7.6 | -7.8 |
| 01/04/2010 10:00 | -7.5 | -7.4 | -7.5 |
| Ice Wine Opportunity: Jan 8-10 | | | |
| 01/08/2010 21:00 | -7.5 | -6.4 | -6.2 |
| 01/08/2010 22:00 | -7.7 | -6.7 | -6.4 |
| 01/08/2010 23:00 | -8.8 | -6.9 | -7.1 |
| 01/09/2010 0:00 | -8.6 | -8.1 | -8.3 |
| 01/09/2010 1:00 | -8.6 | -8.4 | -8.8 |
| 01/09/2010 2:00 | -8.6 | -8.5 | -9.7 |
| 01/09/2010 3:00 | -8.7 | -9.6 | -10.3 |
| 01/09/2010 4:00 | -8.7 | -9.6 | -10 |
| 01/09/2010 5:00 | -8.6 | -9.9 | -10 |
| 01/09/2010 6:00 | -9.4 | -10.3 | -9.9 |
| 01/09/2010 7:00 | -9.8 | -10.4 | -10 |
| 01/09/2010 8:00 | -10.8 | -10.5 | -10.2 |
| 01/09/2010 9:00 | -12.4 | -10.6 | -10.3 |
| 01/09/2010 10:00 | -11.2 | -10.2 | -9.4 |
| 01/09/2010 11:00 | -10.2 | -8.6 | -8.8 |
| 01/09/2010 12:00 | -9.6 | -7 | -8.1 |
| 01/09/2010 13:00 | -9.2 | -5.9 | -7.5 |
| 01/09/2010 14:00 | -8.9 | -4.8 | -7.1 |
| 01/09/2010 15:00 | -8.6 | -3.3 | -7 |
| 01/09/2010 16:00 | -8.9 | -4.3 | -6.6 |



Legend:

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|--|-----------------------------|
| | Ice Wine Temperatures |
| | Below Ice Wine Temperatures |



| Date/Time | Cedar Springs | Colchester | Kingsville |
|--|---------------|------------|------------|
| 01/09/2010 17:00 | -9.9 | -6.7 | -6.7 |
| 01/09/2010 18:00 | -11.9 | -12.6 | -10.9 |
| 01/09/2010 19:00 | -12.7 | -17.2 | -13.6 |
| 01/09/2010 20:00 | -12.7 | -16.5 | -14.2 |
| 01/09/2010 21:00 | -13.1 | -14.7 | -14.5 |
| 01/09/2010 22:00 | -12.8 | -13.6 | -16.5 |
| 01/09/2010 23:00 | -12.6 | -14 | -18.1 |
| 01/10/2010 0:00 | -13.9 | -12.4 | -18.1 |
| 01/10/2010 1:00 | -13.9 | -12.1 | -17.2 |
| 01/10/2010 2:00 | -13.7 | -12.6 | -16.3 |
| 01/10/2010 3:00 | -14 | -13.9 | -16 |
| 01/10/2010 4:00 | -14.9 | -14.1 | -16 |
| 01/10/2010 5:00 | -14.7 | -14.4 | -16.4 |
| 01/10/2010 6:00 | -14 | -14.3 | -15.1 |
| 01/10/2010 7:00 | -13.5 | -11.9 | -15 |
| 01/10/2010 8:00 | -12.3 | -9.5 | -13.1 |
| 01/10/2010 9:00 | -11.5 | -8.9 | -10.1 |
| 01/10/2010 10:00 | -9.5 | -7.9 | -8.4 |
| 01/10/2010 11:00 | -7 | -7 | -7.4 |
| 01/10/2010 12:00 | -5.2 | -6 | -6.4 |
| Ice Wine Opportunity: Jan 10-11 | | | |
| 01/10/2010 17:00 | -5.5 | -6.4 | -6.2 |
| 01/10/2010 18:00 | -6 | -7.6 | -7.2 |
| 01/10/2010 19:00 | -6.2 | -8.3 | -8 |
| 01/10/2010 20:00 | -6.7 | -8.9 | -8.8 |
| 01/10/2010 21:00 | -7.7 | -9.4 | -9.3 |
| 01/10/2010 22:00 | -7.8 | -9.4 | -9.4 |
| 01/10/2010 23:00 | -7.5 | -9.4 | -9.2 |
| 01/11/2010 0:00 | -7.3 | -9 | -8.9 |
| 01/11/2010 1:00 | -6.6 | -8.7 | -8.7 |
| 01/11/2010 2:00 | -5.9 | -8.2 | -8.4 |
| 01/11/2010 3:00 | -5.8 | -7.6 | -7.8 |
| 01/11/2010 4:00 | -6.4 | -7.4 | -7.4 |
| Ice Wine Opportunity: Jan 11-12 | | | |
| 01/11/2010 21:00 | -7.4 | -7.3 | -7.8 |
| 01/11/2010 22:00 | -7.7 | -7 | -7.6 |
| 01/11/2010 23:00 | -8.1 | -8.4 | -8.3 |
| 01/12/2010 0:00 | -9.1 | -10.6 | -9.2 |
| 01/12/2010 1:00 | -9.4 | -9.5 | -9.1 |
| 01/12/2010 2:00 | -9.2 | -8.5 | -8.6 |
| 01/12/2010 3:00 | -8.8 | -8.5 | -9.5 |
| 01/12/2010 4:00 | -8 | -6.9 | -7.7 |
| 01/12/2010 5:00 | -7.6 | -6.1 | -6.3 |



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Legend:

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|--|-----------------------------|
| | Ice Wine Temperatures |
| | Below Ice Wine Temperatures |



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| Date/Time | Cedar Springs | Colchester | Kingsville |
|--|---------------|------------|------------|
| Ice Wine Opportunity: Jan 12 | | | |
| 01/12/2010 18:00 | -6.7 | -5.7 | -5.4 |
| 01/12/2010 19:00 | -7.7 | -6.9 | -6.5 |
| 01/12/2010 20:00 | -8.3 | -8.3 | -8 |
| 01/12/2010 21:00 | -8.5 | -9.4 | -8.5 |
| 01/12/2010 22:00 | -8.4 | -8.7 | -8.4 |
| 01/12/2010 23:00 | -8.9 | -6.5 | -7 |
| 01/13/2010 0:00 | -7.5 | -5.1 | -5.8 |
| 01/13/2010 1:00 | -5.2 | -4.1 | -4.6 |
| Ice Wine Opportunity: Jan 27 | | | |
| 01/27/2010 6:00 | -6.9 | -7.1 | -7.1 |
| 01/27/2010 7:00 | -7.3 | -7.3 | -7.3 |
| 01/27/2010 8:00 | -7.6 | -7.8 | -8 |
| 01/27/2010 9:00 | -7.9 | -8.6 | -8.6 |
| 01/27/2010 10:00 | -8.2 | -8.6 | -8.6 |
| 01/27/2010 11:00 | -8 | -8 | -8.2 |
| 01/27/2010 12:00 | -7.6 | -7.3 | -7.5 |
| 01/27/2010 13:00 | -6.7 | -6.1 | -6.6 |
| Ice Wine Opportunity: Jan 28-31 | | | |
| 01/28/2010 7:00 | -5.4 | -5.6 | -5.5 |
| 01/28/2010 8:00 | -6.9 | -6.2 | -6.2 |
| 01/28/2010 9:00 | -8.2 | -7.3 | -7.5 |
| 01/28/2010 10:00 | -9.4 | -8.1 | -8.5 |
| 01/28/2010 11:00 | -9.5 | -8.4 | -8.9 |
| 01/28/2010 12:00 | -9.7 | -8.8 | -9.5 |
| 01/28/2010 13:00 | -10 | -9 | -9 |
| 01/28/2010 14:00 | -9.7 | -8.9 | -8.8 |
| 01/28/2010 15:00 | -9.5 | -8.5 | -8.6 |
| 01/28/2010 16:00 | -9.9 | -8.7 | -9.2 |
| 01/28/2010 17:00 | -9.8 | -8.6 | -9 |
| 01/28/2010 18:00 | -10.9 | -9.5 | -9.7 |
| 01/28/2010 19:00 | -11.5 | -10.3 | -10.9 |
| 01/28/2010 20:00 | -11.8 | -10.8 | -11.4 |
| 01/28/2010 21:00 | -12.1 | -11.3 | -11.5 |
| 01/28/2010 22:00 | -12.4 | -11.7 | -12 |
| 01/28/2010 23:00 | -12.7 | -12.4 | -12.3 |
| 01/29/2010 0:00 | -13.2 | -12.6 | -12.8 |
| 01/29/2010 1:00 | -13.7 | -12.8 | -13.6 |
| 01/29/2010 2:00 | -14.4 | -13.3 | -13.8 |
| 01/29/2010 3:00 | -14.5 | -13.6 | -14.6 |
| 01/29/2010 4:00 | -14.8 | -13.9 | -14.6 |
| 01/29/2010 5:00 | -14.9 | -14.2 | -14.5 |
| 01/29/2010 6:00 | -14.9 | -14.2 | -14.9 |



Legend:

| | |
|--|-----------------------------|
| | Ice Wine Temperatures |
| | Below Ice Wine Temperatures |



| Date/Time | Cedar Springs | Colchester | Kingsville |
|------------------|---------------|------------|------------|
| 01/29/2010 7:00 | -14.8 | -14.5 | -14.6 |
| 01/29/2010 8:00 | -14.6 | -14.3 | -14.6 |
| 01/29/2010 9:00 | -13.6 | -13.3 | -13.7 |
| 01/29/2010 10:00 | -11.6 | -11.5 | -11.8 |
| 01/29/2010 11:00 | -10.3 | -10.4 | -10.4 |
| 01/29/2010 12:00 | -9.2 | -9.1 | -9.2 |
| 01/29/2010 13:00 | -8.4 | -8.4 | -8.4 |
| 01/29/2010 14:00 | -7.6 | -7.9 | -7.8 |
| 01/29/2010 15:00 | -7.2 | -7.2 | -7.6 |
| 01/29/2010 16:00 | -7.3 | -7.4 | -7.3 |
| 01/29/2010 17:00 | -8.1 | -7.7 | -7.1 |
| 01/29/2010 18:00 | -8.9 | -8.4 | -8.7 |
| 01/29/2010 19:00 | -10.5 | -9.6 | -10.3 |
| 01/29/2010 20:00 | -10.9 | -9.9 | -10.7 |
| 01/29/2010 21:00 | -11.6 | -10.5 | -11.5 |
| 01/29/2010 22:00 | -11.7 | -11.3 | -11.8 |
| 01/29/2010 23:00 | -12 | -11 | -10.8 |
| 01/30/2010 0:00 | -12.4 | -11.2 | -11 |
| 01/30/2010 1:00 | -12.6 | -11.3 | -11.4 |
| 01/30/2010 2:00 | -12.6 | -11.5 | -11.7 |
| 01/30/2010 3:00 | -12.2 | -11.8 | -11.8 |
| 01/30/2010 4:00 | -10.3 | -11.5 | -11.4 |
| 01/30/2010 5:00 | -9.8 | -11 | -10.9 |
| 01/30/2010 6:00 | -10.1 | -10.8 | -10.4 |
| 01/30/2010 7:00 | -9.9 | -10.4 | -10.4 |
| 01/30/2010 8:00 | -10.4 | -10.3 | -10.1 |
| 01/30/2010 9:00 | -10.7 | -9.9 | -9.8 |
| 01/30/2010 10:00 | -10.3 | -9.2 | -9.3 |
| 01/30/2010 11:00 | -9.8 | -8.4 | -8.4 |
| 01/30/2010 12:00 | -9.4 | -7.8 | -8.1 |
| 01/30/2010 13:00 | -9.5 | -7.6 | -8.1 |
| 01/30/2010 14:00 | -9.1 | -7.5 | -8.1 |
| 01/30/2010 15:00 | -8.8 | -7.5 | -8.1 |
| 01/30/2010 16:00 | -8.7 | -7 | -8.1 |
| 01/30/2010 17:00 | -9.2 | -7.7 | -8.6 |
| 01/30/2010 18:00 | -10.3 | -8.4 | -9.1 |
| 01/30/2010 19:00 | -11.6 | -9.4 | -9.9 |
| 01/30/2010 20:00 | -12.4 | -10.1 | -10.8 |
| 01/30/2010 21:00 | -13.6 | -10.6 | -11.8 |
| 01/30/2010 22:00 | -13.9 | -11.1 | -12 |
| 01/30/2010 23:00 | -13.3 | -12.1 | -13.5 |
| 01/31/2010 0:00 | -13.4 | -12.5 | -13.9 |
| 01/31/2010 1:00 | -13.5 | -12.6 | -14.1 |



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Legend:



| | |
|--|-----------------------------|
| | Ice Wine Temperatures |
| | Below Ice Wine Temperatures |



Weather INnovations Incorporated

| Date/Time | Cedar Springs | Colchester | Kingsville |
|------------------|---------------|------------|------------|
| 01/31/2010 2:00 | -12.7 | -12.7 | -13.9 |
| 01/31/2010 3:00 | -12.4 | -12.3 | -13.4 |
| 01/31/2010 4:00 | -11.8 | -12.3 | -12.7 |
| 01/31/2010 5:00 | -11.7 | -11.4 | -12.5 |
| 01/31/2010 6:00 | -11.4 | -10.7 | -12.4 |
| 01/31/2010 7:00 | -11.3 | -10 | -12.1 |
| 01/31/2010 8:00 | -10.6 | -9.7 | -10.8 |
| 01/31/2010 9:00 | -9.3 | -9 | -9 |
| 01/31/2010 10:00 | -7.7 | -8.4 | -8.1 |
| 01/31/2010 11:00 | -6.9 | -7.6 | -7.1 |
| 01/31/2010 12:00 | -5.7 | -6.4 | -6.1 |
| 01/31/2010 13:00 | -6.5 | -5.8 | -5.6 |

 Legend:

| | |
|---|-----------------------------|
|  | Ice Wine Temperatures |
|  | Below Ice Wine Temperatures |

SUMMARY

January 2010 temperatures were normal in the Lake Erie North Shore appellation. There were 15 days when temperatures, at one or more stations, dipped into ice wine temperature ranges. The coldest January event for this appellation took place on the 9th of January, reaching -18.9°C at the Kingsville station. These conditions provided a reasonable number of suitable hours for grape harvesting for ice wine during the 2009/2010 season.