



***Weather INnovations Incorporated***



# December 2009: Temperature & Ice Wine Hours Summary

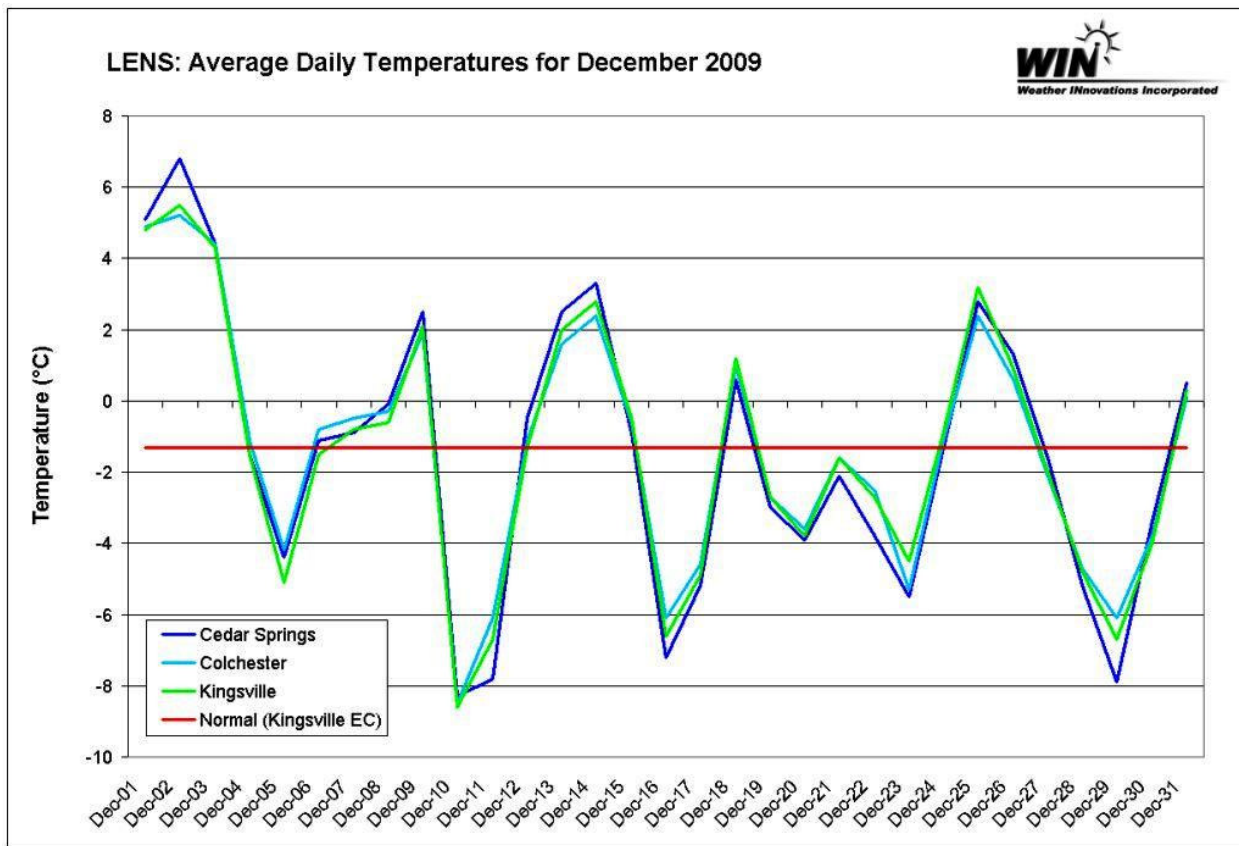
Lake Erie North Shore

WIN Staff  
January 18, 2010



## OVERVIEW

December 2009 temperatures were very close to normal in the Lake Erie North Shore appellation. In fact, temperatures were only slightly below-normal, with average monthly temperatures of  $-1.5^{\circ}\text{C}$  at Cedar Springs and  $-1.4^{\circ}\text{C}$  at Colchester and Kingsville. Accordingly, the average monthly temperatures were only  $0.1^{\circ}\text{C}$  -  $0.2^{\circ}\text{C}$  below-normal for this appellation. These statistics are based on Environment Canada's 30-year normal for Kingsville. This summary illustrates minimum December 2009 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  $-8.0^{\circ}\text{C}$  and  $-12.0^{\circ}\text{C}$ , 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 December 2009 was: -10.9°C at the Cedar Springs station; -10.7°C at the Kingsville station and -10.6°C at the Colchester station. These monthly minimum temperatures occurred on the 10<sup>th</sup>, 17<sup>th</sup> and 23<sup>rd</sup> of December. There were 9 days when temperatures, at one or more stations, dipped into ice wine temperature ranges. This is shown in the following figure.

Date	Cedar Springs	Colchester	Kingsville
01-Dec	2.2	2.2	2.1
02-Dec	5.7	3	3.3
03-Dec	1.3	2	1.8
04-Dec	-4.6	-5.1	-4.8
05-Dec	-7.5	-6.6	-7.6
06-Dec	-5.7	-4.7	-6.3
07-Dec	-2.2	-1.3	-2.8
08-Dec	-5	-5.9	-5.7
09-Dec	-3.4	-4.5	-4.2
10-Dec	-10.9	-10.3	-10.5
11-Dec	-10.7	-9.4	-9.9
12-Dec	-7.6	-5.3	-6.9
13-Dec	0.8	0.7	0.9
14-Dec	0.1	0.5	0.7
15-Dec	-7.4	-7.5	-7.4
16-Dec	-10.1	-8.4	-8.4
17-Dec	-10.7	-9.8	-10.7
18-Dec	-0.9	-0.2	-0.2
19-Dec	-5.5	-5	-4.2
20-Dec	-7.9	-8.7	-9.9
21-Dec	-4.2	-2.9	-3.1
22-Dec	-10.2	-7.7	-6.6
23-Dec	-10.8	-10.6	-9.1
24-Dec	-5	-5	-4.7
25-Dec	1.3	1	1
26-Dec	-0.6	-0.7	-0.7
27-Dec	-4.6	-5.4	-5.9
28-Dec	-7.8	-6.2	-6.1
29-Dec	-10.5	-7.5	-9.2
30-Dec	-8.5	-6.3	-7.7
31-Dec	0	-1	-0.9

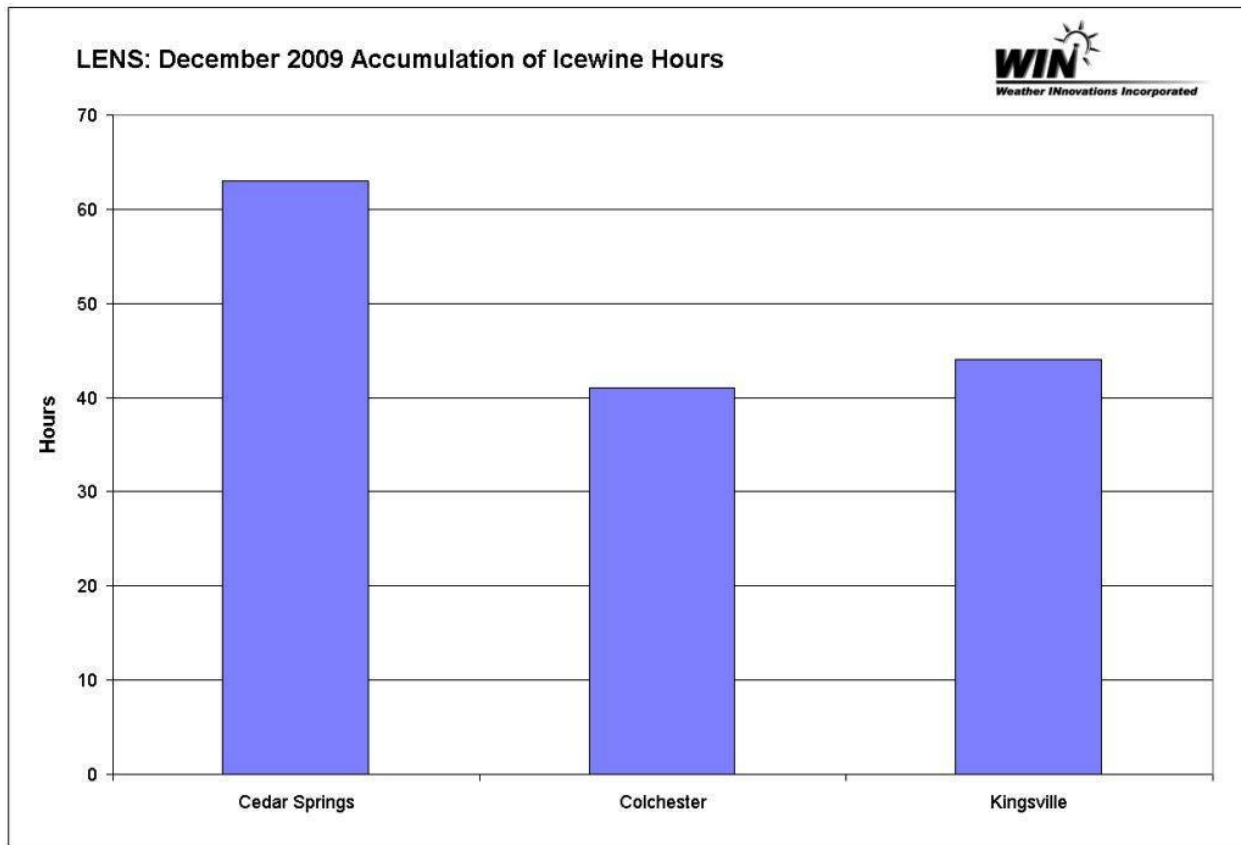


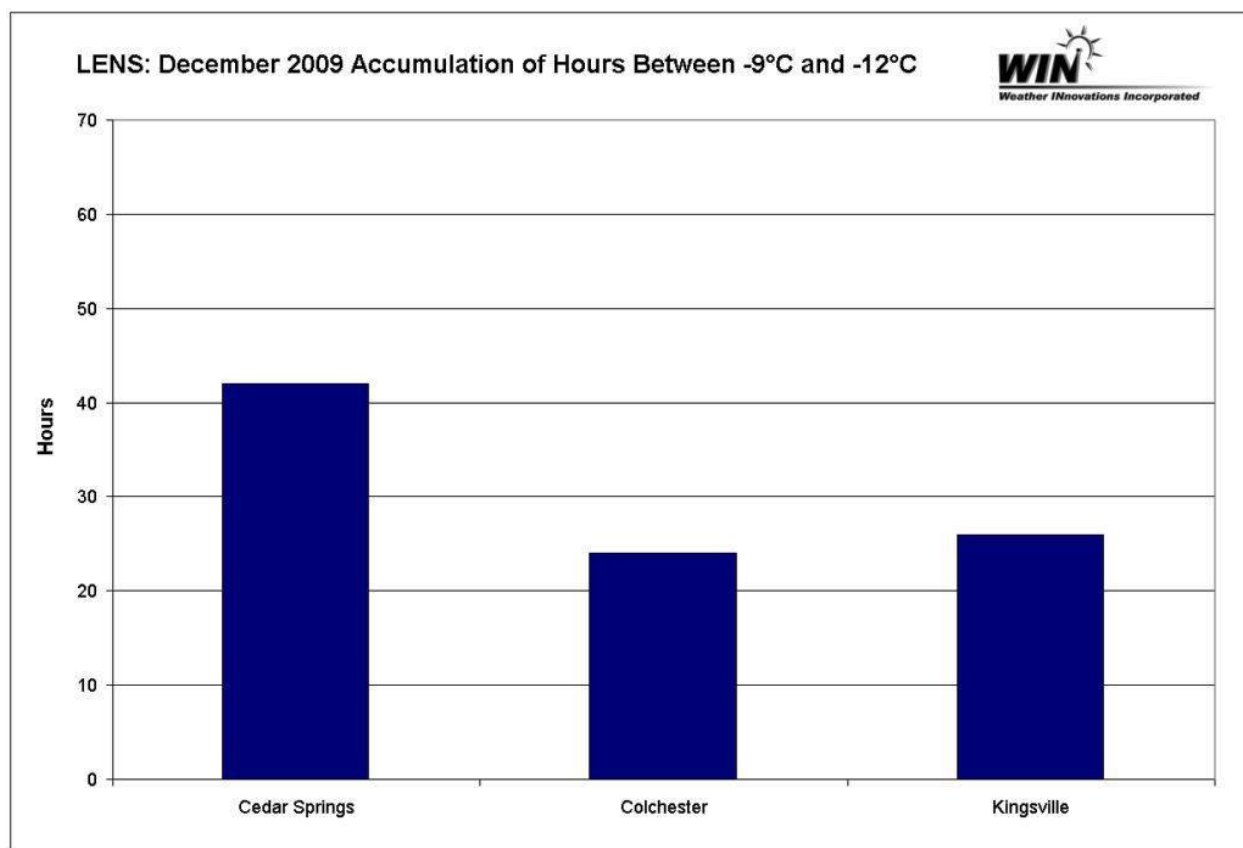
**Legend:**

	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 December 2009, due to the colder temperatures experienced at this station. A total of 63 ice wine hours were recorded at this station, while the Kingsville station only recorded 44 hours and the Colchester station recorded 41 hours. December 2009 also shows a large number of hours between  $-9^{\circ}\text{C}$  and  $-12^{\circ}\text{C}$  for Cedar Springs but fewer for Colchester and Kingsville. Thus, there were a reasonable number of suitably cold hours at the Cedar Springs location for harvesting ice wine grapes in December; however, finding suitable occasions at Colchester and Kingsville proved to be a greater challenge.





The December 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
<b>Ice Wine Opportunity: Dec 10-11</b>			
12/10/2009 6:00	-6.1	-6.5	-6.5
12/10/2009 7:00	-6.3	-6.9	-6.8
12/10/2009 8:00	-6.6	-7.5	-7.2
12/10/2009 9:00	-7	-8.2	-7.8
12/10/2009 10:00	-7.2	-9.2	-8.9
12/10/2009 11:00	-8.3	-9.8	-9.7
12/10/2009 12:00	-8.9	-10.2	-10
12/10/2009 13:00	-9.1	-9.8	-10
12/10/2009 14:00	-9.3	-9.7	-9.8
12/10/2009 15:00	-9.5	-9.8	-9.9
12/10/2009 16:00	-9.9	-10	-10
12/10/2009 17:00	-10.3	-10	-10.1
12/10/2009 18:00	-10.7	-9.9	-10.2
12/10/2009 19:00	-10.7	-9.8	-10.1
12/10/2009 20:00	-10.6	-9.9	-10.1
12/10/2009 21:00	-10.6	-9.9	-10.1
12/10/2009 22:00	-10.7	-10.2	-10.3
12/10/2009 23:00	-10.8	-10.1	-10.4
12/11/2009 0:00	-10.9	-9.7	-10
12/11/2009 1:00	-10.6	-9.3	-9.8
12/11/2009 2:00	-10.3	-8.6	-9
12/11/2009 3:00	-9.5	-8.3	-8.6
12/11/2009 4:00	-9.2	-8.1	-8.4
12/11/2009 5:00	-9.3	-8.2	-8.5
12/11/2009 6:00	-9.6	-8.1	-8.5
12/11/2009 7:00	-9.5	-8	-8.3
12/11/2009 8:00	-9	-8	-8.2
12/11/2009 9:00	-8.7	-7.9	-8.1
12/11/2009 10:00	-8.1	-7.6	-7.7
12/11/2009 11:00	-7.8	-7.2	-7.4
12/11/2009 12:00	-6.9	-6.3	-6.6
12/11/2009 13:00	-6.6	-5.2	-5.9

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**Legend:**

	Days with Ice Wine Temperatures
	Monthly Minimum

Date/Time	Cedar Springs	Colchester	Kingsville
<b>Ice Wine Opportunity: Dec 16</b>			
12/15/2009 23:00	-5.9	-6.6	-6.4
12/16/2009 0:00	-7.2	-7.4	-7.2
12/16/2009 1:00	-7.6	-7.7	-7.7
12/16/2009 2:00	-7.9	-7.5	-8
12/16/2009 3:00	-8.2	-7.2	-8.3
12/16/2009 4:00	-8	-7	-8.3
12/16/2009 5:00	-8	-6.7	-7.7
12/16/2009 6:00	-8.2	-6.8	-7
12/16/2009 7:00	-7.7	-7	-7.4
12/16/2009 8:00	-7.5	-7.1	-7.8
12/16/2009 9:00	-7.3	-6.8	-7.3
<b>Ice Wine Opportunity: Dec 16-17</b>			
12/16/2009 19:00	-7.2	-5.4	-6.4
12/16/2009 20:00	-7.1	-6.3	-7.2
12/16/2009 21:00	-7.1	-7.3	-7.8
12/16/2009 22:00	-7.6	-7.6	-8.3
12/16/2009 23:00	-8.8	-7.3	-7.9
12/17/2009 0:00	-9.5	-8	-7.9
12/17/2009 1:00	-10.6	-8.5	-8.4
12/17/2009 2:00	-10.6	-8.6	-9.1
12/17/2009 3:00	-10	-8.7	-9
12/17/2009 4:00	-9.9	-9.2	-9.5
12/17/2009 5:00	-10.1	-9.7	-9.8
12/17/2009 6:00	-10.2	-9.4	-10.4
12/17/2009 7:00	-10.4	-8.7	-10.1
12/17/2009 8:00	-9.7	-9	-9.9
12/17/2009 9:00	-9.1	-8.5	-9.4
12/17/2009 10:00	-7	-6.2	-6.2
12/17/2009 11:00	-4.1	-4.3	-4.9
12/17/2009 12:00	-3.3	-3.2	-3.4



Legend:

	Days with Ice Wine Temperatures
	Monthly Minimum



Date/Time	Cedar Springs	Colchester	Kingsville
<b>Ice Wine Opportunity: Dec 20</b>			
12/20/2009 0:00	-5.2	-3.9	-4
12/20/2009 1:00	-5.7	-4.5	-4.4
12/20/2009 2:00	-6.8	-5.5	-5.9
12/20/2009 3:00	-7.5	-6.9	-8.1
12/20/2009 4:00	-7	-6.7	-9.2
12/20/2009 5:00	-6.8	-7.5	-8.4
12/20/2009 6:00	-6.6	-8.5	-7.2
12/20/2009 7:00	-6.4	-7	-6.3
12/20/2009 8:00	-6.1	-6.2	-5.9
12/20/2009 9:00	-5.9	-5.2	-5.1
<b>Ice Wine Opportunity: Dec 22-23</b>			
12/22/2009 19:00	-5.7	-3.2	-3.5
12/22/2009 20:00	-6.7	-3.5	-4.2
12/22/2009 21:00	-7.4	-4.6	-4.8
12/22/2009 22:00	-8.2	-5.8	-5.4
12/22/2009 23:00	-9.5	-6.1	-5.7
12/23/2009 0:00	-8.8	-7.2	-6.4
12/23/2009 1:00	-7.9	-6.7	-6.2
12/23/2009 2:00	-7.9	-8	-6.6
12/23/2009 3:00	-7.2	-8.1	-6.8
12/23/2009 4:00	-8.2	-6.5	-5.6
12/23/2009 5:00	-9.4	-7.6	-6.5
12/23/2009 6:00	-10.4	-10	-6.7
12/23/2009 7:00	-9.5	-9.8	-7.1
12/23/2009 8:00	-8.1	-10.3	-8.6
12/23/2009 9:00	-7.5	-9.4	-8.5
12/23/2009 10:00	-2.8	-5.4	-4.9
12/23/2009 11:00	-1.5	-2.5	-2.5
12/23/2009 12:00	-2	-1.3	-1.4



Legend:

	Days with Ice Wine Temperatures
	Monthly Minimum



Date/Time	Cedar Springs	Colchester	Kingsville
<b>Ice Wine Opportunity: Dec 29</b>			
12/28/2009 22:00	-6.7	-4.4	-4.7
12/28/2009 23:00	-6.3	-5	-4.9
12/29/2009 0:00	-7.2	-5.2	-5.8
12/29/2009 1:00	-8.6	-5.7	-6.2
12/29/2009 2:00	-9.2	-6	-6.9
12/29/2009 3:00	-9.5	-6.2	-6.9
12/29/2009 4:00	-9.6	-6.6	-6.9
12/29/2009 5:00	-9.7	-6.9	-7
12/29/2009 6:00	-9.6	-7.1	-7.1
12/29/2009 7:00	-9.8	-7.2	-7.2
12/29/2009 8:00	-10.5	-7.2	-7.3
12/29/2009 9:00	-9.5	-7	-7.1
12/29/2009 10:00	-7.9	-6.3	-6.7
12/29/2009 11:00	-6.7	-5.9	-6.2
12/29/2009 12:00	-6.2	-5.3	-5.8
<b>Ice Wine Opportunity: Dec 29-30</b>			
12/29/2009 16:00	-5.7	-4.9	-5.3
12/29/2009 17:00	-6	-5.3	-5.7
12/29/2009 18:00	-6.6	-7.1	-7.3
12/29/2009 19:00	-6.8	-6.4	-8
12/29/2009 20:00	-7.5	-6.1	-9
12/29/2009 21:00	-8.1	-6.2	-7.4
12/29/2009 22:00	-8.2	-5.9	-6.8
12/29/2009 23:00	-8.3	-6.2	-6.8
12/30/2009 0:00	-8.1	-5.9	-7
12/30/2009 1:00	-7.5	-6.1	-6.9
12/30/2009 2:00	-8.3	-6.2	-7.6
12/30/2009 3:00	-8.2	-6.2	-6.8
12/30/2009 4:00	-7.4	-6	-6.6
12/30/2009 5:00	-6.2	-6	-6.2
12/30/2009 6:00	-4.6	-5.9	-6



Legend:

	Days with Ice Wine Temperatures
	Monthly Minimum

## SUMMARY

December 2009 temperatures were near-normal in the Lake Erie North Shore appellation; average temperatures for the month were only slightly below the 30-year normal for Kingsville. There were 9 days when temperatures, at one or more stations, dipped into ice wine temperature ranges. The coldest December event took place on the 10<sup>th</sup> of December, reaching -10.9°C at the Cedar Springs station. These conditions provided a reasonable number of suitable hours for grape harvesting for ice wine at the Cedar Springs location, but fewer at the Colchester and Kingsville locations.

