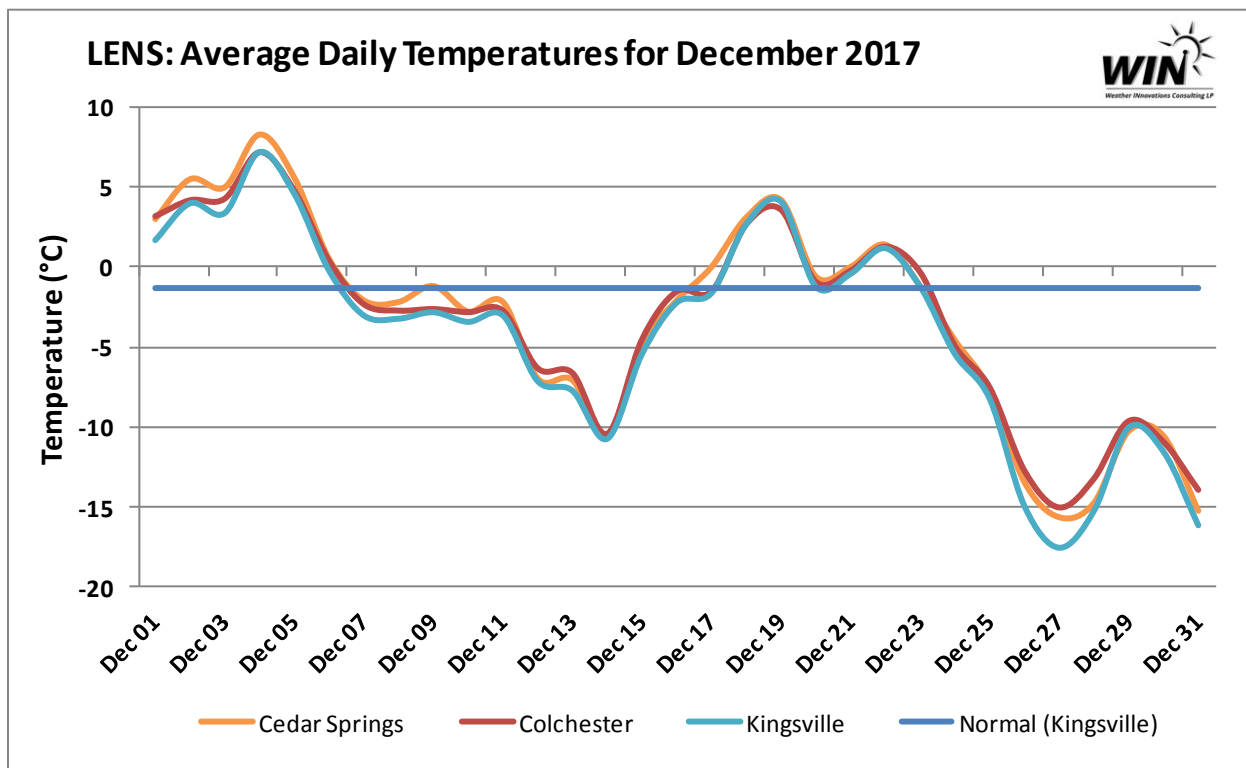




## December 2017

### Overview

Average December temperatures at Cedar Springs, Colchester, and Kingsville were  $-3.2^{\circ}\text{C}$ ,  $-3.3^{\circ}\text{C}$ , and  $-4.0^{\circ}\text{C}$  respectively (compared to  $-0.9^{\circ}\text{C}$ ,  $-1.5^{\circ}\text{C}$ , and  $-1.9^{\circ}\text{C}$  in 2016). The average monthly temperatures were  $1.9^{\circ}\text{C}$  to  $2.7^{\circ}\text{C}$  below normal for the Lake Erie North Shore appellation (compared to  $0.6^{\circ}\text{C}$  below normal to  $0.4^{\circ}\text{C}$  above normal in 2016). These statistics are based on Environment Canada's 30-year normals for Kingsville. This summary illustrates December 2017 minimum temperatures and icewine hours. For this report, icewine hours are defined as instances when the average hourly temperature was between  $-8.0^{\circ}\text{C}$  and  $-12.0^{\circ}\text{C}$ , inclusive.



### Temperature Analysis

The monthly minimum temperatures for each site in December 2017 were  $-20.8^{\circ}\text{C}$  (compared to  $-16.2^{\circ}\text{C}$  in 2016) at the Cedar Springs station;  $-19.2^{\circ}\text{C}$  (compared to  $-17.1^{\circ}\text{C}$  in 2016) at the Colchester station; and  $-22.6^{\circ}\text{C}$  (compared to  $-17.7^{\circ}\text{C}$  in 2016) at the Kingsville station. These monthly minimum temperatures occurred on December 14 and 27 at Colchester and on December 28 for Cedar Springs and Kingsville. There were 7 days this month, compared to 0 days in December 2015, when temperatures, at one or more stations, dipped into icewine temperature ranges.



### LENS: Daily Minimums

November 2017

Date	Cedar Springs	Colchester	Kingsville
1-Nov	1.9	2.3	1
2-Nov	9.7	8	7.7
3-Nov	2.9	3.4	2.7
4-Nov	2.8	2.6	2.2
5-Nov	10.3	9	8.8
6-Nov	2.8	3.1	2.8
7-Nov	1.4	0.6	-0.6
8-Nov	-2.1	-2.3	-3.8
9-Nov	-3.6	-2.8	-3.5
10-Nov	-7.7	-7.4	-7.4
11-Nov	-5.1	-6.2	-6.6
12-Nov	-0.4	0.6	-0.5
13-Nov	1.4	2	1.5
14-Nov	0.2	1.5	0.1
15-Nov	6.4	4.7	4.7
16-Nov	1.8	1.9	1.9
17-Nov	-1.7	0	0.5
18-Nov	0.8	1.1	0.5
19-Nov	-0.6	-0.5	-1.5
20-Nov	-1.2	-0.2	-1.2
21-Nov	1.6	2.2	1.8
22-Nov	-2.7	-3.2	-4.9
23-Nov	-2.8	-0.2	-1.8
24-Nov	2.8	1.8	1
25-Nov	1.7	1.5	1.2
26-Nov	-0.1	-3.8	-5.5
27-Nov	-1	-1.7	-2.8
28-Nov	7.7	6.1	5.7
29-Nov	0.5	-1.4	-1
30-Nov	4.2	2.2	0.1

December 2017

Date	Cedar Springs	Colchester	Kingsville
1-Dec	-1.1	-1	-3.9
2-Dec	1.8	1.5	1.9
3-Dec	0.3	-0.4	-2.3
4-Dec	4.6	5	3.8
5-Dec	-0.8	-0.9	-1.5
6-Dec	-1.4	-1.6	-2.2
7-Dec	-3.9	-3.5	-4.2
8-Dec	-4.5	-5.4	-5.7
9-Dec	-5.3	-3.7	-4
10-Dec	-6.3	-4.8	-6
11-Dec	-5.7	-8.1	-8.2
12-Dec	-11.7	-10.3	-13
13-Dec	-13.3	-10.2	-13.7
14-Dec	-15.6	-19.2	-17.8
15-Dec	-13.2	-15.6	-18.3
16-Dec	-5.4	-6.3	-7.1
17-Dec	-6	-6.7	-7.7
18-Dec	2.4	1.5	1.4
19-Dec	2.6	1.5	1.6
20-Dec	-2.9	-3.5	-4.1
21-Dec	-2.8	-3	-3.1
22-Dec	0.6	0.5	0.3
23-Dec	-5.5	-3.4	-4.8
24-Dec	-6.1	-6.6	-6.9
25-Dec	-11.8	-10.9	-13.2
26-Dec	-19.1	-15.8	-21.8
27-Dec	-20	-19.2	-21.9
28-Dec	-20.8	-18.9	-22.6
29-Dec	-12.9	-11	-11.6
30-Dec	-15.8	-15.2	-17.1
31-Dec	-20.4	-18.8	-22

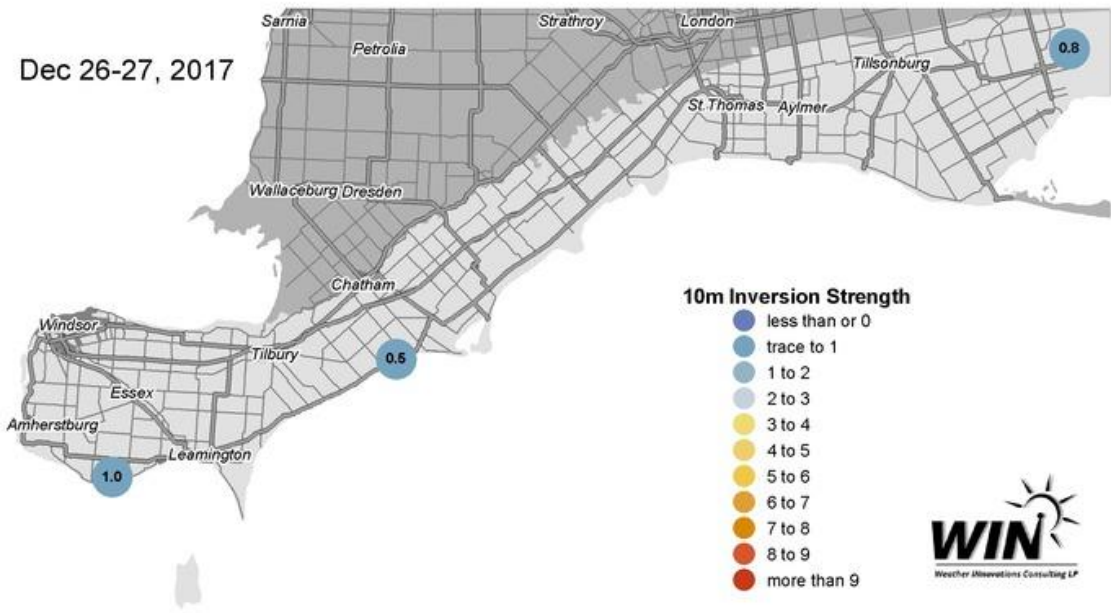
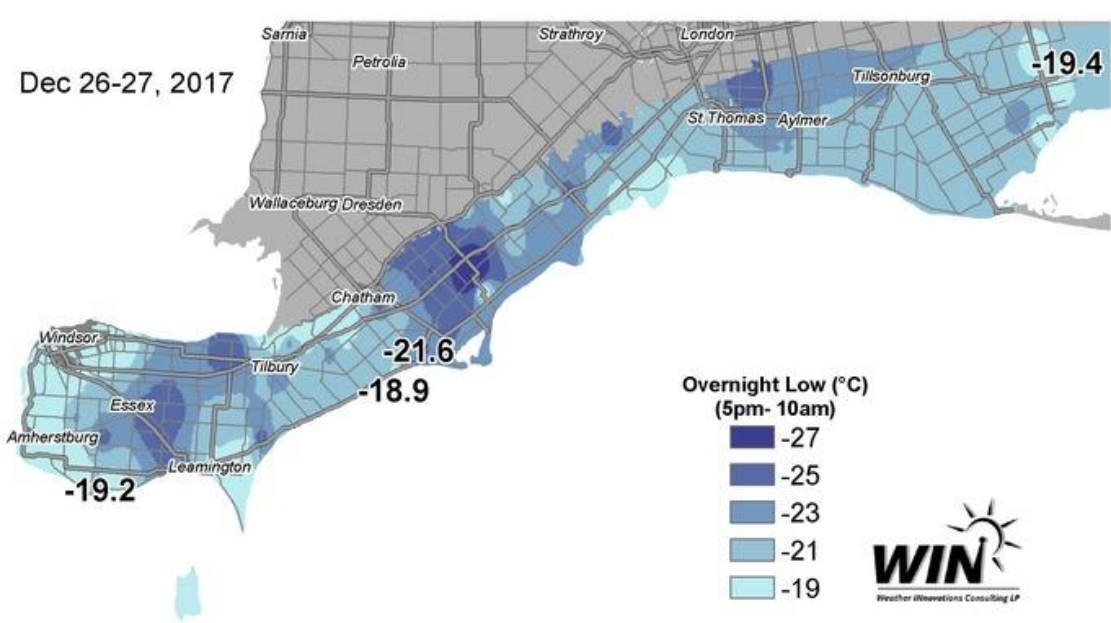


	Days with Icewine Temperatures
	Monthly Minimum



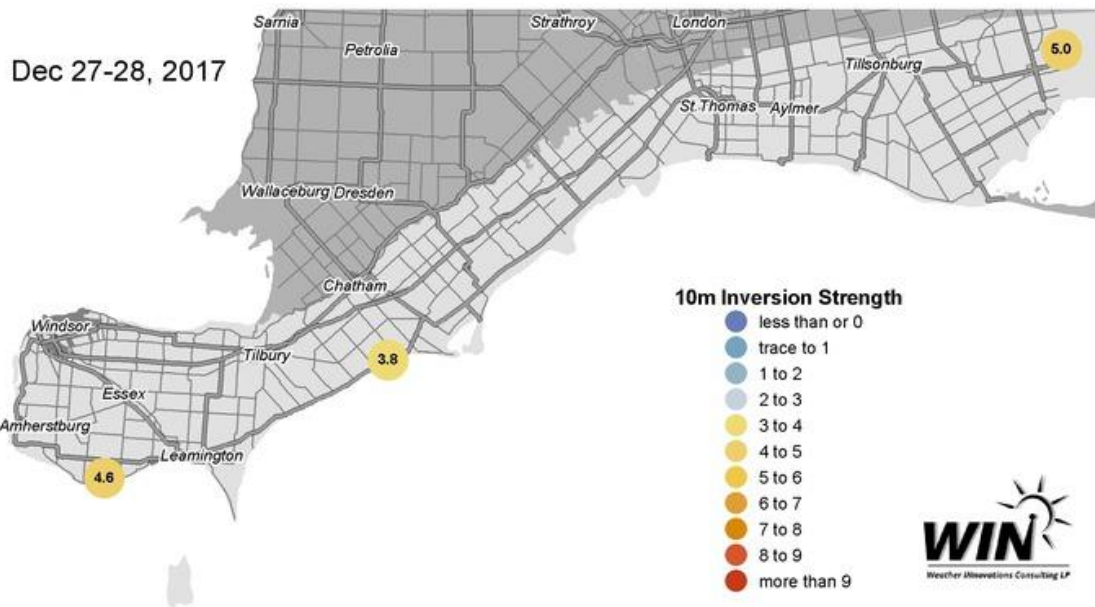
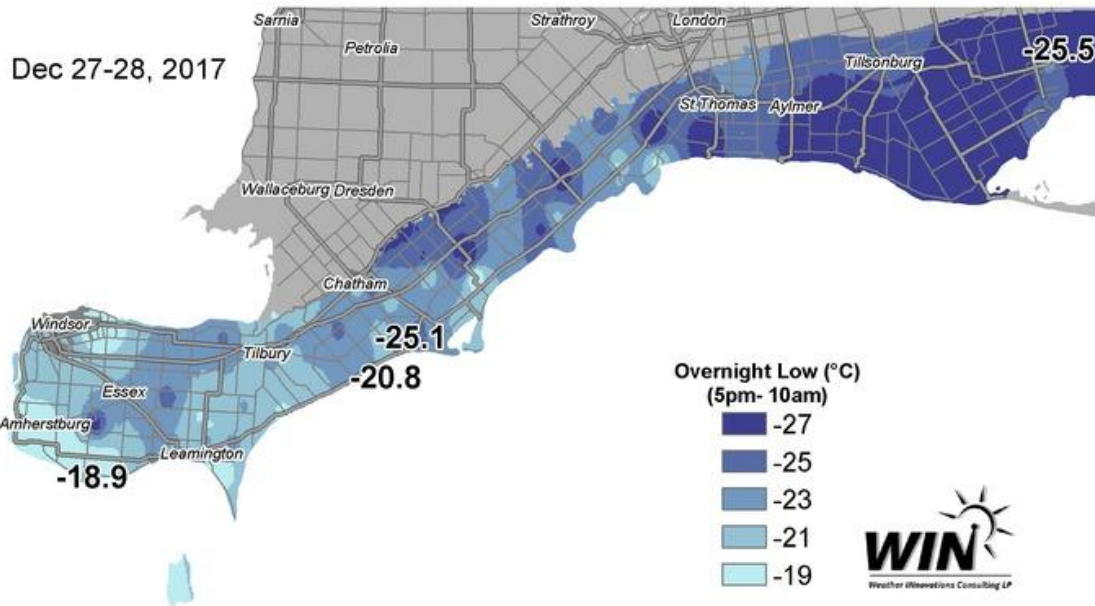
### Inversion Strength

The following six figures show the temperature and 10 m inversion strengths for the coldest November and December nights: December 26-27, December 27-28, and December 31 - January 1. Inversion temperatures were suitable for running wind machines during the nights of December 27-28 and December 31 - January 1, potentially mitigating the cold surface temperatures.



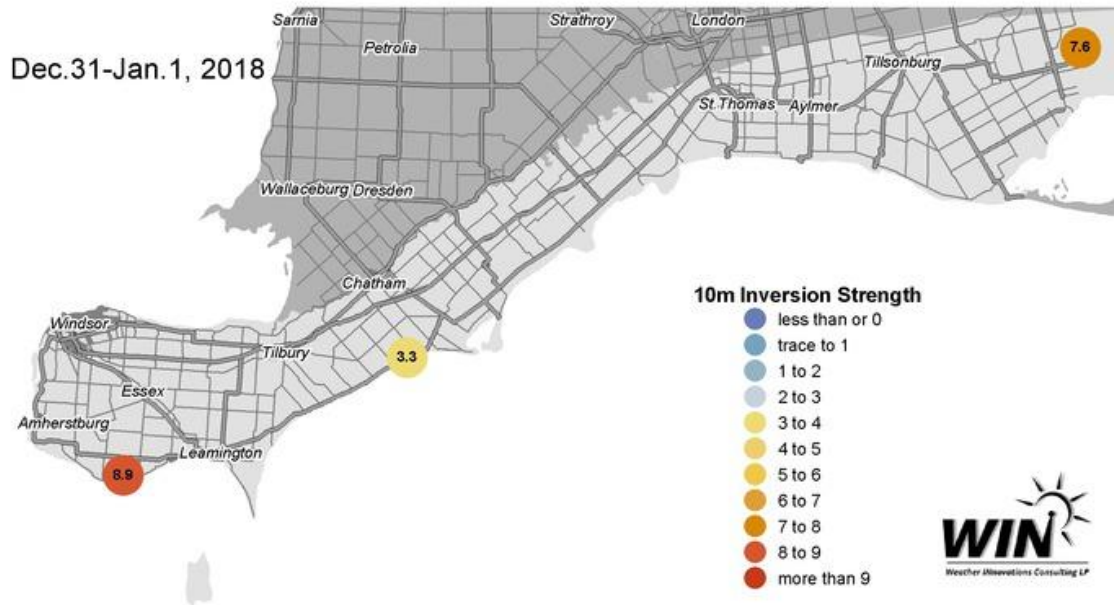
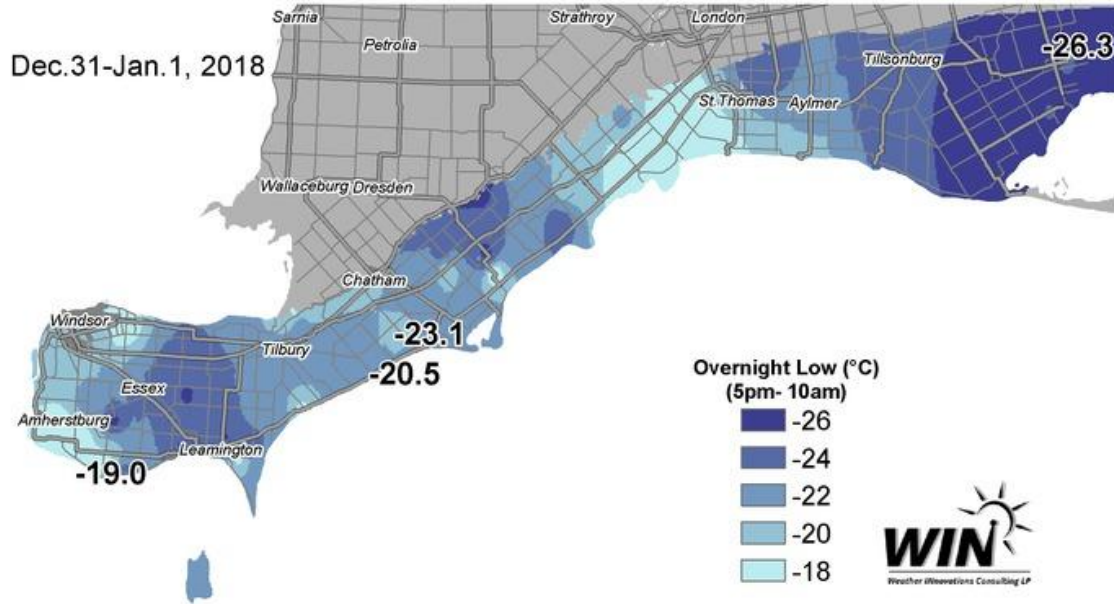


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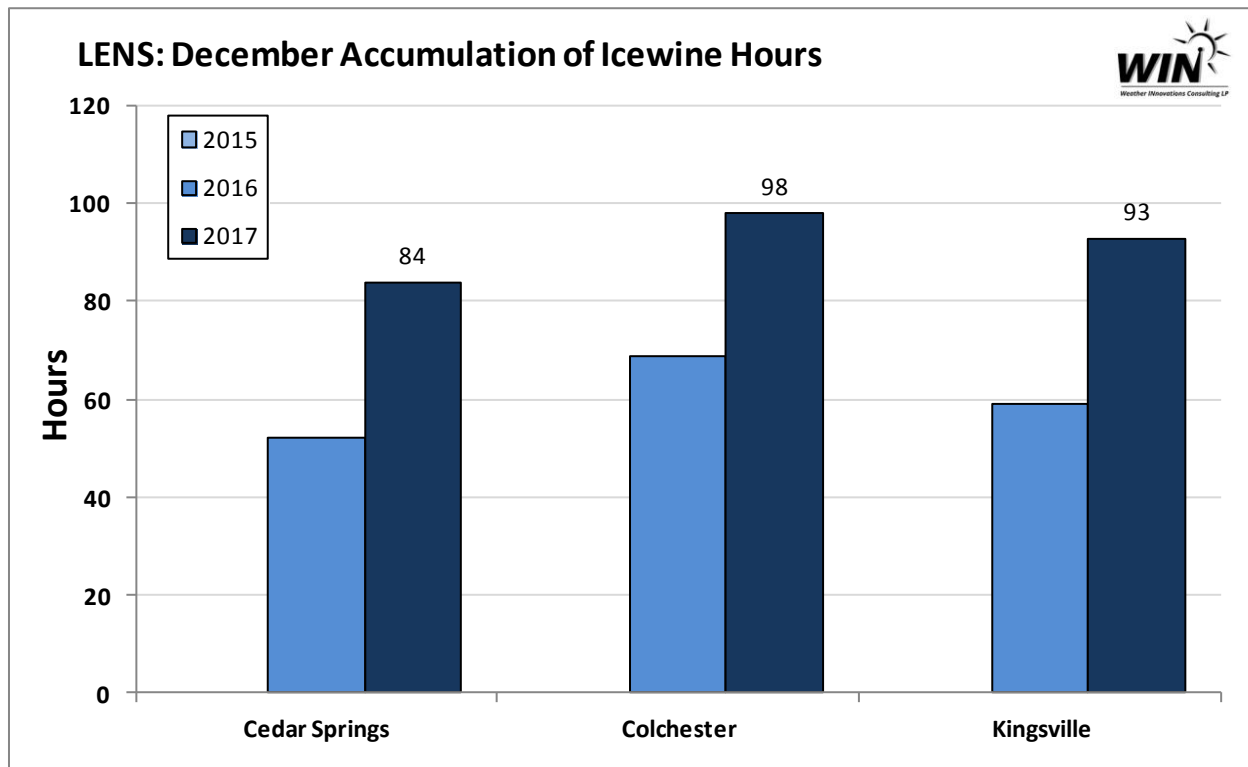
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## Icewine Hours Analysis

The cold December temperatures resulted in 84 to 98 icewine hours across the appellation. December 2017 icewine hours exceeded both 2015 and 2016 values, as seen in the following figure. The Lake Erie North Shore stations recorded between 52 and 69 icewine hours in December 2016 and no icewine hours in December 2015. Due to the cold mid-December temperatures, many icewine harvests could be completed before the new year.



## Summary

December 2017 temperatures were below normal in the Lake Erie North Shore appellation; average temperatures for the month were 1.9°C to 2.7°C below the 30-year normals. The coldest temperature reached was -22.6°C on December 28 at the Kingsville station. December provided some opportunities for harvesting icewine grapes at all locations.