

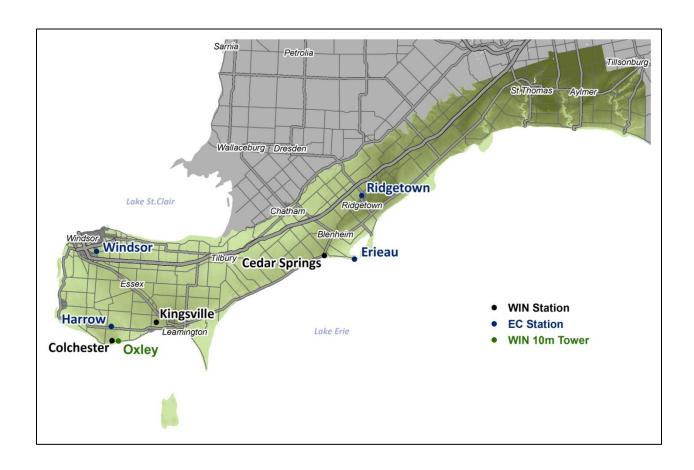
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Lake Erie North Shore Appellation 2017 Growing Season Summary

Overview

The 2017 growing season in the Lake Erie North Shore appellation ended with near to slightly above normal heat units. Daytime high and overnight low temperatures were above normal during April, June, and October, while above below temperatures occurred in May, July and August. The months of April, May and October recorded above normal rainfall, while the June through September was below normal precipitation.

All of these attributes are examined in the following report. The 30-year normal's used for comparisons in this report were taken from Environment Canada's Kingsville location. The station locations referred to in this report are shown in the following map:

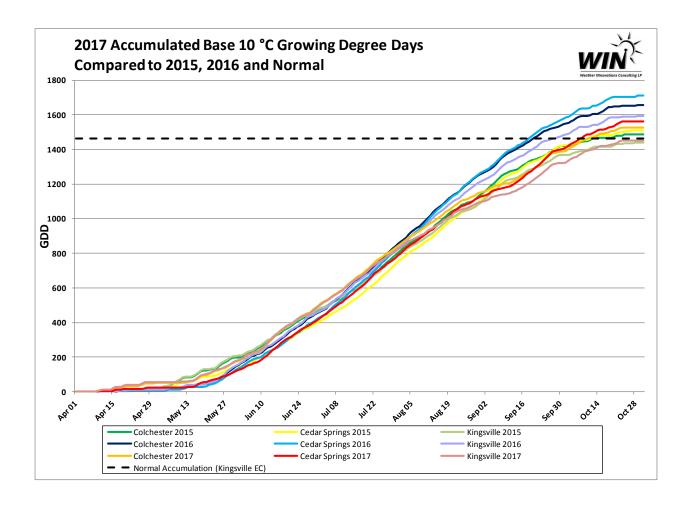




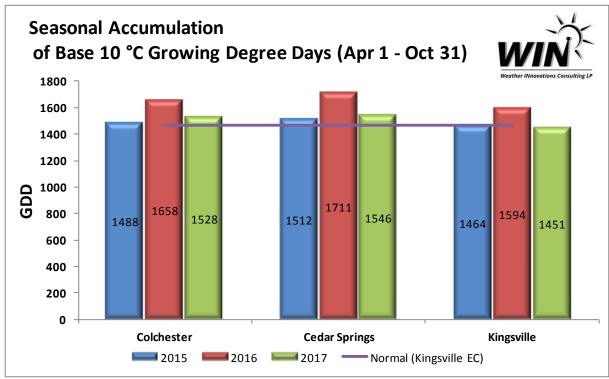
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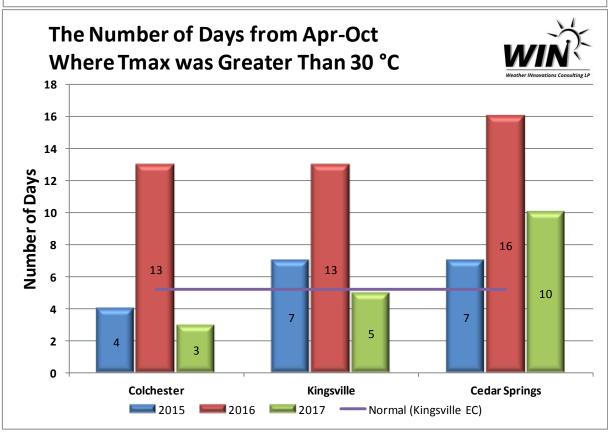
Temperature and Growing Degree Days

Above normal temperatures in April resulted in a quick start to the accumulation of base 10 °C growing degree days. However, May brought below normal temperatures to the appellation that continued throughout July and August. June temperatures were above normal. Below normal overnight lows continued throughout September while daytime highs rose above normal. The season ended with above normal highs and lows in October. In 2017, Colchester and Kingsville recorded 3 and 5 days above 30 °C, respectively, while Cedar Springs recorded 10 days, which is lower than the 2015 and 2016 seasons. The following graphs illustrate these temperature attributes:











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LENS: Average Daily Maximums Compared to Normal (2017)



| | Apr | May | June | July | Aug | Sept | Oct |
|------------------------|------|------|------|------|------|------|------|
| Normal (Kingsville EC) | 11.8 | 18.9 | 23.8 | 26.5 | 25.5 | 21.6 | 14.9 |
| Colchester | 14.6 | 17.9 | 25.0 | 26.2 | 25.4 | 23.0 | 17.5 |
| Kingsville | 15.0 | 17.7 | 25.0 | 25.9 | 24.9 | 23.3 | 17.3 |
| Cedar Springs | 12.8 | 16 | 23.8 | 27.1 | 26.2 | 23.9 | 18.2 |

Normal

Above-normal

Below-normal

LENS: Average Daily Minimums Compared to Normal (2017)



| | Apr | May | June | July | Aug | Sept | Oct |
|------------------------|-----|-----|------|------|------|------|------|
| Normal (Kingsville EC) | 2.9 | 9.5 | 15.1 | 17.8 | 16.8 | 12.9 | 6.6 |
| Colchester | 5.9 | 9.1 | 15.8 | 16.9 | 14.6 | 12.6 | 9.8 |
| Kingsville | 5.7 | 8.8 | 15.2 | 16.1 | 12.9 | 11.6 | 8.9 |
| Cedar Springs | 5.5 | 9.1 | 15.4 | 17.5 | 15.7 | 14.3 | 10.7 |

Normal

Above-normal

Below-normal



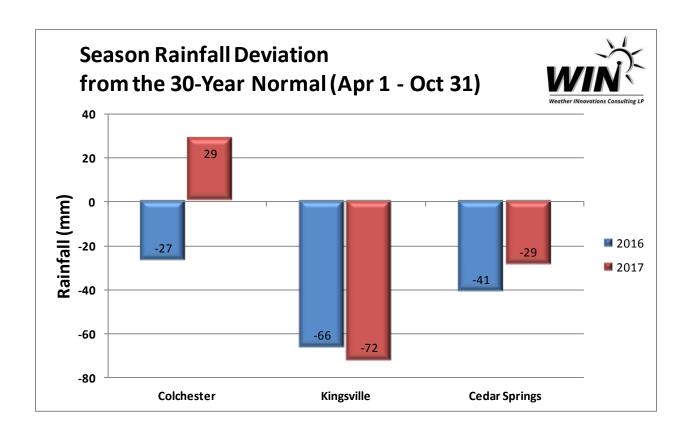
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Precipitation

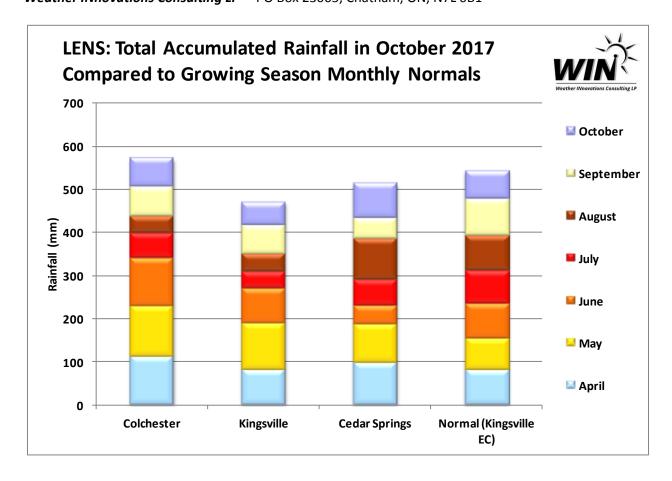
The 2017 growing season can be summarized as having above normal rainfall from April through to the end of June and throughout October with below normal rainfall during July through September. Overall, the growing season precipitation averaged 105 % of normal at Colchester, 87 % of normal at Kingsville, and 95 % of normal at Cedar Springs.

April precipitation averaged 119 % of normal across the three stations. Similarly, the appellation recorded 143 % of normal rainfall during May. June precipitation varied across the locations with Colchester recording 136 % of normal while Cedar Springs recorded 56 % of normal.

July precipitation was below normal with an average of 68 % of normal at the three stations. During August, Colchester and Kingsville recorded 50 % of normal, while Cedar Springs was 119 % of normal. The appellation averaged 72 % of normal rainfall during September. October rainfall averaged 103 % across the stations with Cedar Springs and Kingsville recording 123 % and 81 % of normal, respectively.





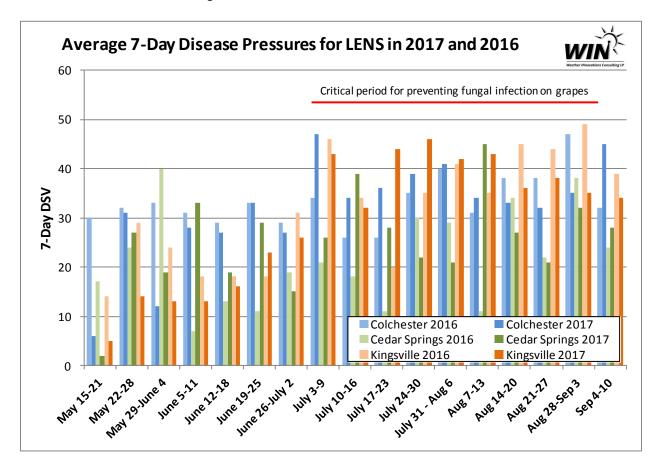


Disease Pressure

The Lake Erie North Shore appellation experienced less disease pressure at Colchester and Kingsville than in 2016, where Cedar Springs had higher disease pressure than in 2016. The graph below shows that the periods between July 3 and August 13, and September 4 to 10 were the most critical periods during 2017. These periods had a high accumulation of disease severity values. The periods of May 15 to 21 and May 29 to June 4 show notably lower disease pressures than in 2016.



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Conclusion

The 2017 growing season accumulated near normal heat units and was notable for above normal precipitation during the spring and below normal overnight low temperatures during the summer. A wet spring was followed by below normal precipitation during the summer. October brought the return of near normal precipitation. The season opened with above normal temperatures in April and June, while May temperatures were below normal. Temperatures returned to below normal values during July and August, and daytime highs rose above normal in September and October.

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