

# Orchard Outlook



Vol. 17, No. 20

Nov. 14, 2017

AIGEP Applications 2018	2017 Degree Day Accumulations	2017 Season Summary
PMRA Re-evaluations		Events and Notices

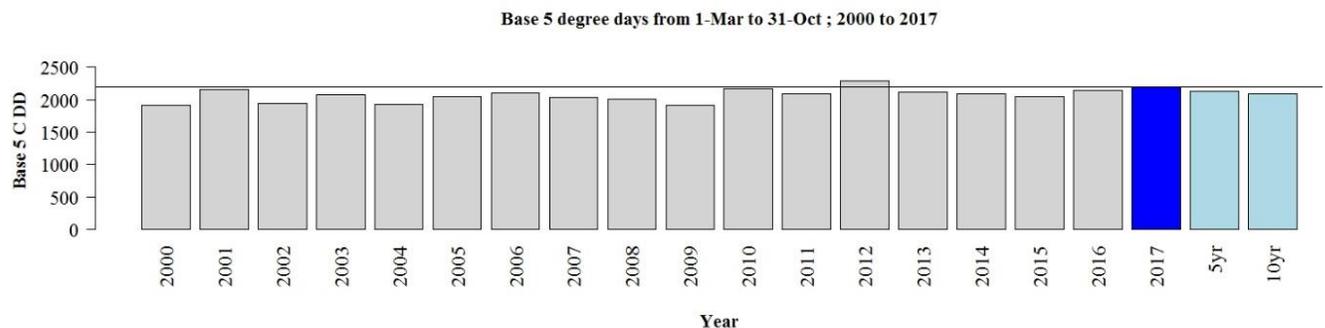
## Addendum to the October Issue of the Orchard Outlook

In the October issue (Vol. 17 No. 19), I recommended sanitation practices for the orchard that would reduce the apple scab spore inoculum in spring of 2018. One successful strategy is to apply urea to leaves on the ground to speed their decay. As an alternative, you may prefer to apply a 5% solution of urea (46-0-0) in water (50 kg urea in 1000L/ha of water) to apple trees as leaf fall begins.

## Now Receiving AIGEP Applications for 2018!

The Apple Industry Growth and Efficiency Program (AIGEP) application and guidelines have been emailed to the Orchard Outlook contact list. Fully completed Applications for 2018 planting **must** be received by the **Nova Scotia Fruit Growers' Association on or before November 30, 2017**. If dropping off in person, please call the office (902-678-1093) to ensure someone is there to receive your application.

## 2017 Degree Day Accumulations



**Figure 1:** Heating degree day accumulations for plant development (above 5°C) from March 1<sup>st</sup> to October 31<sup>st</sup> for the past 17 seasons. Provided by Jeff Franklin (AAFC).

Heating degree day accumulation from March 1<sup>st</sup> through October 31<sup>st</sup> was (Figure 1):

- Approximately 3% more plant development heat units compared to the 5-year average, and 5% more compared to the 10-year average.
- Approximately 2% more plant development heat units compared to 2016.
- Approximately 2% more insect development heat units compared to the 5-year average, and 6% more compared to the 10-year average.

You might have noticed that 2017 was one of the warmest years since 2000. There is an upward trend in heat units over time. We have been observing, on average, an increase of approximately 10 heat units per year since 2000.

## 2017 Season Summary

### **Tree Health and Bloom**

The winter temperatures in December 2016 through to March 2017 were similar to the previous 5 years, and there was no significant winter injury reported in tree crops. A warm spring led to full bloom of apple trees around the week of May 21<sup>st</sup>, which was more than a week ahead of development in spring of 2016. Frost was generally not an issue during bloom.

### **Crop Load**

Overall, there was a good crop load wherever sufficient bloom was present. However, natural fruit drop was high this year in many orchards, which was likely related to the weather during bloom and after fruit set. Weather during bloom was variable with some cool and cloudy conditions for the earlier developing areas and varieties, followed by warmer, cloudy days. Current research suggests that cloudy days and warm temperatures produce a carbohydrate deficit in the tree that leads to an enhanced thinning effect. Cool temperatures could have also reduced bee activity in certain regions of the Valley. Another ongoing challenge is managing the biennial bearing tendency of Honeycrisp to produce an adequate bloom each year.

### **Disease and Insect Pressure**

Beginning in early May, the damp weather led to several apple scab infection periods per week. This season brought difficult weather conditions for apple scab control, and there was a need to renew fungicide protection on short intervals in response to the consistently wet weather. There were a total of 11 primary infection periods of apple scab, and 7 secondary infection periods where primary infections had established. There were approximately 50% more primary scab infection periods this season, compared with the 2016 season.

Sporadic outbreaks of fire blight occurred again in 2017, and many were in areas with a previous history of the disease. New plantings were particularly susceptible to fire blight outbreaks because of vigorous tree growth. In addition, several growers reported trees that were performing poorly or suddenly collapsing. Some of these trees have been infected by *Phytophthora*, which is a fungal pathogen that thrived in the frequent wetting conditions experienced this season. However, apple decline can arise from many factors. Please report any incidences of tree decline to me, and we can review the symptoms.

Overall, insect damage was fairly typical, with some increased damage from codling moth that could suggest this pest is becoming a greater concern. Spotted wing *Drosophila* was found in traps very early this season and resulted in a challenging harvest season for berries and it was also found in ripening peaches and nectarines (E. Bent).

### **Harvest and Fruit Quality**

Harvest was advanced by 5-10 days this year, compared to average. Maturity was likely accelerated because there were 3% and 5% more heating degree days for plant development compared with the 5- and 10-year averages, respectively (Figure 1).

Fruit colour started out poor in September because of very warm nights, however, cooler nights in October brought excellent colour. Fruit size was good on trees with adequately thinned crop loads, likely due to the consistent precipitation this season. From May to August, precipitation was equal to or higher than the 1981-2010 average. In September and October, rainfall was lower than the 1981-2010 average by 25% and 65%, respectively. The dry and warm conditions prior to harvest are likely related to incidences of watercore, especially if the conditions led to low fruit calcium levels.

Fresh fruit harvest was complete around the last week of October and the first week of November. Internal browning of fruit was noticed in late picks, which was likely related to overmaturity.

### Conclusions and Notes

Growers generally felt that this growing season was much improved over the droughty conditions in 2016. Adequate heat and precipitation contributed to good vegetative growth of young trees and fruit growth this year. It was a challenge to coordinate a timely harvest due to the accelerated fruit maturity and initially poor colouring.

*This season summary has been published with the input of Erika Bent (APM Agricultural Pest Monitoring Consulting Ltd.) and Bill Craig (Horticulturist). Information was sourced through conversations with growers, and with reference to 2017 issues of the Orchard Outlook.*

### PMRA Re-evaluations Affecting Tree Fruit

As you plan for 2018, you might like to consider this summary of responses to Pest Management Regulatory Agency (PMRA) re-evaluation consultations that apply to tree fruit include:

- **Linuron, group-7 (LOROX Herbicide)** – Proposed discontinuation of all uses affecting apple, peach, pear, plum and cherry. Pending final decision Dec 2017.
- **Mancozeb, group-M (DITHANE Fungicide)** – Proposed discontinuation of certain uses and limitations on remaining uses affecting apple and pear. Second consultation on Mar 2018.
- **Metiram, group-M (POLYRAM Fungicide)** – Proposed discontinuation of all uses affecting apple. Pending final decision Mar 2018.
- **Ferbam, group-M (FERBAM Fungicide)** – Proposed discontinuation of all uses affecting apple, pear, apricot, cherry, peach, and plum. Pending final decision June 2018.
- **Thiram, group-M (THIRAM Fungicide)** – Proposed discontinuation of all uses affecting apple, peach and plum. Pending final decision June 2018.
- **Chlorothalonil, group-M (BRAVO Fungicide)** – Proposed discontinuation of certain uses and limitations on remaining uses affecting cherry, peach and nectarine. Pending final decision Mar 2018.
- **Iprodione, group-2 (ROVRAL Fungicide)** – Proposed discontinuation of all uses affecting apricot, cherry, peach and plum. Pending final decision Mar 2018.
- **Captan, group-M (CAPTAN Fungicide)** – Proposed discontinuation of certain uses and limitations on remaining uses affecting apple, pear, cherry, plum, peach, nectarine and apricot. Pending final decision Mar 2018.
- **Imidacloprid, group-4 (ADMIRE Insecticide)** – Proposed discontinuation of all uses affecting pome and stone fruit. Pending final decision Dec 2018.

- **Lambda-cyhalothrin, group-3 (MATADOR Insecticide)** - Proposed discontinuation of all uses affecting apple, peach and nectarine. Pending final decision TBD.
- **Phosmet, group-1B (IMIDAN Insecticide)** - Proposed discontinuation of all uses affecting apple, cherry, pear, peach and plum. Pending final decision TBD.

**Note:** Always refer to pesticide product labels. You can look up labels using the online database of all pesticides registered for use in Canada on the [Health Canada](http://www.healthcanada.gc.ca) website.

**Save time:** Smartphone users can download an app called [Pesticide Labels by Health Canada](https://play.google.com/store/apps/details?id=ca.healthcanada.pesticide). Using the app, you can save your searches and download product labels to your 'Favourites' for access, even when you are offline.

## Events and Opportunities

Date	Event / Opportunity	Location
Ongoing	<b>Food Safety Fundamentals Online Course</b> <a href="http://www.perennia.ca/foodsafety/onlinelearning/">http://www.perennia.ca/foodsafety/onlinelearning/</a>	Online learning
Ongoing	<b>Nova Scotia Farm Photo Project</b> FSNS and NSFA are developing a bank of photos. Participating farms will receive up to two high quality digital prints from a photo session. Contact <a href="mailto:info@farmsafetyns.ca">info@farmsafetyns.ca</a> with your location, commodity(ies) and what your farm has to showcase.	Only a limited number of farms will be selected to participate
November 21, 2017 / RSVP	<b>Honeycrisp Exchange Meeting</b> <b>*(see agenda below table)</b> RSVP to Paulette Brown at <a href="mailto:Paulette.Brown@AGR.GC.CA">Paulette.Brown@AGR.GC.CA</a> or 902-365-8501	32 Main Street, Kentville, AAFC Research Station via video conferencing
November 27, 2017, 6-9 pm / RSVP	<b>Tax Time on the Farm Workshop</b> Tax essentials for farmers. No cost for session. No cost for this session. Contact Cheryl at 902-679-6021 or e-mail <a href="mailto:cheryl.theriau@novascotia.ca">cheryl.theriau@novascotia.ca</a>	Cornwalls Room Atlantic Food & Horticulture Centre 32 Main Street, Kentville, NS
December 5-7, 2017	<b>Great Lakes Fruit, Vegetable and Farm Market Expo</b> <a href="http://www.glexpo.com">www.glexpo.com</a>	Grand Rapids, Michigan
January 24, 2018	<b>NSFGA Annual Convention</b> <a href="http://www.nsfga.com/">http://www.nsfga.com/</a>	Greenwich, NS
January 30-February 1, 2018	<b>Mid-Atlantic Fruit and Vegetable Convention</b> <a href="http://www.mafvc.org/">http://www.mafvc.org/</a>	Hershey, PA
February 26, 2018 /waiting list	<b>International Fruit Tree Association</b> <a href="http://www.iftatravel.com/conference">http://www.iftatravel.com/conference</a>	Napier, New Zealand
February 21-22, 2018	<b>Ontario Fruit &amp; Vegetable Convention</b> <a href="http://www.ofvc.ca/">http://www.ofvc.ca/</a>	Niagara Falls, Ontario
March 7-8, 2018	<b>Investing in Machinery and Equipment Course</b> <a href="http://www.agrifoodtraining.com/investing-in-machinery-and-equipment-course">http://www.agrifoodtraining.com/investing-in-machinery-and-equipment-course</a>	Kentville, NS

**\*Honeycrisp Exchange Meeting Agenda:**

1:00 – 1:15

Opening

1:15 – 1:45

**Industry organizations updates: Current state, needs, future goals**

Apple Growers of New Brunswick – Angela Gowens

Nova Scotia Fruit Growers – Candy O’Conner

PEI – TBD

1:45 – 2:15

**Provincial updates: Program supports, expansion opportunities, new varieties**

NB – Garth Nickerson

PEI – Lynda MacSwain

NS – Michelle Cortens, Perennia

2:15 – 2:30

Refreshment break

2:30 – 3:10

**AAFC Honeycrisp Research: What is happening, what is new**

Jun Song (improving flavour)

Julie Reekie (organic Honeycrisp orchard)

Suzie Blatt (fireblight and resistance to rosy apple aphid)

John DeLong (maturity and postharvest storage)

3:10 – 4:30

**Facilitated Discussion**

Growers will have the opportunity to join the discussion to influence research and extension priorities in the Maritimes.

**Editor: Michelle Cortens, Tree Fruit Specialist, Perennia Food and Agriculture Inc.**

*Michelle has a M.Sc. from the University of Guelph through her research with chemical thinning apple fruitlets. She likes developing solutions to real problems, which is why Michelle has experience as an extension assistant, content writer and has won awards for community involvement and leadership.*

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