

Orchard Outlook



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2016 Degree Day Accumulations

Degree day accumulations from March 1st to July 12th fell slightly over the past week compared to the 5- and 10-year averages (Figure 1).

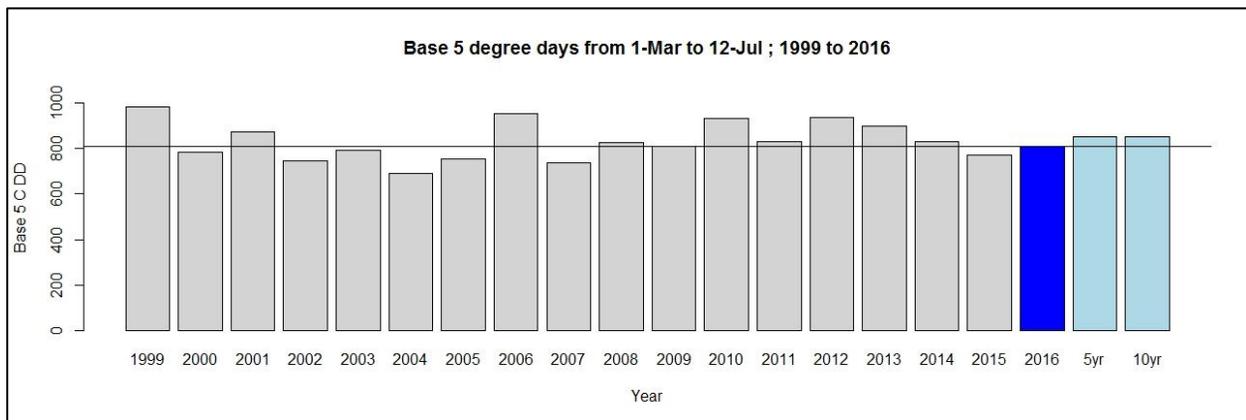


Figure 1: Degree day accumulations from March 1st for the past 18 seasons. Provided by Jeff Franklin (AAFC).

To date heat accumulation since March 1st is (Figure 1):

- About 5% fewer plant development heat units compared to the 5-year average.
- About 5% more plant development heat units compared to 2015.
- About 8% fewer insect development heat units compared to the 5-year average.

Diseases

Apple & Pear Scab

There were two infection periods recorded this past week at Kentville AAFC. The first one began at 3:30 pm on Thursday, July 7th and lasted until 7:30 am on Friday, July 8th. The second one began at 12:00 pm on Sunday, July 10th and lasted until 9:00 am on Monday, July 11th. These were both secondary infections from conidial spores. Fruit scab is now very evident on apple and pear where scab control was not perfect.

Fire Blight

Both blossom blight and shoot blight strikes have been reported in several locations across the Valley. Terminal bud set is beginning to occur which should limit further spread as active shoot growth ceases. Where the number of infections is light and can be manageably pruned from the orchard, removal on a dry day and discarding in the row middles will help reduce secondary inoculum production. Sanitizing pruning equipment at periodic intervals is a good practice to eliminate spreading fire blight from block to block. Removal by pruning should not be attempted where the number of infections would make the chance of accidentally spreading fire blight very high.

With the presence of ooze a possibility in the orchard, work only in dry conditions in blocks with fire blight as ooze is spread much more easily during wet conditions!

PERENNIA IS COLLECTING FIRE BLIGHT SAMPLES AGAIN IN 2016 ON BEHALF OF AAFC FOR STREPTOMYCIN RESISTANCE TESTING AND OTHER RESEARCH NEEDS.

IF YOU LOCATE FIRE BLIGHT IN YOUR ORCHARD, PLEASE CONTACT CHRIS DUVELSHOFF AT 902-678-7722 OR CDUYVELSHOFF@PERENNIA.CA SO A SAMPLE MAY BE TAKEN FOR RESISTANCE TESTING.

YOUR SPECIFIC FARM OR LOCATION WILL NOT BE IDENTIFIED IN ANY PUBLICATIONS.

Powdery Mildew

Continue to watch for powdery mildew in nurseries and young plantings which can interfere with terminal development and tree growth. See the Orchard Management Schedule for registered products for mildew control. There appears to be more powdery mildew pressure than in the past couple of seasons due to the extended period of hot dry weather.

Brown Rot

Cherries are colouring, however, it will still be another 1-2 weeks before the bulk of the cherries ripen. Stone fruits become susceptible to brown rot infections again as they start to ripen. Regular preharvest fungicide applications are critical, especially during periods of wet weather. With periods of heavy and frequent rainfall, the interval between fungicide applications may need to be as short as 3-5 days. Once brown rot has appeared on picked fruit it is too late to do anything about control. If you are treating more than one type of stone fruit make sure that the product is registered for all the crops that you are spraying. Also check the pre-harvest interval. Check the Stone Fruit Management Schedule for products and rates. Rotate fungicide classes for resistance management.

Insects

Apple Maggot

Apple maggot flies have been captured in several locations this past week. The economic threshold is 1 maggot fly per orchard on a yellow sticky board. Note wing pattern for identification of apple maggot (Figure 2). Apply a treatment 7-10 days after the first fly is captured on a yellow sticky board or immediately after a female is captured on a red sphere. Highly effective products

for AM are limited to Imidan (2.68 kg/ha), Assail (160-240 g/ha), Calypso (440 mL/ha), and Exirel (1.0-1.5 L/ha).

Growers that are using Altacor, Delegate, or TwinGuard for CM or OBLR control will also have some suppressive activity on AM, but these products should not be relied upon for control in most situations. Conversely, all registered AM control products will impact both CM and OBLR as well.

In organic orchards, Surround can be used to deter egg laying and GF 120 fruit fly bait can be used for suppression of adult flies. Both Surround and GF 120 should begin to be applied as soon as flies are present in the orchard.



Figure 2: Wing pattern of apple maggot and adult fly on Gingergold apple.

Yellow sticky traps should be cleaned out after application to determine the additional emergence of adult flies. Additional captures when the residual life of the insecticide is complete (14 days depending on rainfall with Imidan) will indicate a second spray is required. With the neonicotinoids (Assail or Calypso) or diamides (Exirel), insecticide residue should be maintained through the end of August and retreatment would be based on rainfall or 10-14 days residual activity. The following article from Michigan State University includes a good reference table of apple maggot insecticides and activity.

http://msue.anr.msu.edu/news/managing_apple_maggots_using_insecticides

Aphids

Check the terminal growth for the presence of Green Apple Aphid colonies. An aphid control treatment is recommended if 10% of terminals are infested.

Mites

Summer miticide options include Acramite, Kanemite, Nexter, Envidor, and Nealta. Scout your orchards or check your scouting reports to see if there is a treatable population. Mites have many generations per year and therefore have a high potential to develop resistance. For resistance management, it is critical to rotate miticide classes. The use of dormant oil applications will also help to delay resistance selection for European Red Mite. Those growers that make use of a scouting service will need to apply miticides when population thresholds are reached. In mid-July, the presence of European red mite or twospotted spider mite on 44 of 50 leaves examined will act as threshold for treatment.

Horticulture

Apple Thinning

Fruitlet drop from thinners is finishing in most areas. This is a good time to make a few notes on thinner performance. Hand thinning can begin in blocks where chemical thinning did not adequately reduce crop load. Start with the highest value varieties such as Ambrosia, Honeycrisp, Gala, and Club varieties.

NSFGA Annual Orchard Tour

The NSFGA Annual Orchard Tour will take place on **Thursday, August 4th** beginning at 8:30 am at the Kentville Agriculture Centre. Tour agenda will be published shortly.

Golden Apple Award 2016 – Best Management of a First Year Planting

Today's new orchards represent the future success of the tree fruit industry in the province. To recognize the importance of successful first-year establishment on future orchard performance, the NSFGA Production Committee has chosen Best Management of a First Year Planting as the Golden Apple Award category in 2016. This award will recognize the efforts of an individual to ensure successful tree establishment and uniform growth of a first year planting. The NSFGA Production Committee would like to request nominations for a recipient of the 2016 Golden Apple Award for this category. Nominations can be forwarded to Candy O'Connor, NSFGA (902-678-1093 or coconnor@nsapples.com). Nominations will be judged by the NSFGA Production Committee.

Entries have to meet the following requirements to be eligible for the Golden Apple Award:

- Be nominated by a peer grower or industry representative
- The orchard is a minimum of 1 acre in area and was planted in 2016

Nominations are to be judged by the NSFGA production committee based on the following criteria:

- Tree survival rate
- Uniformity of tree growth
- Level of weed control
- Adequate insect & disease control
- Crop load management
- Orchard floor management
- Overall general appearance

OrchardMAX Airblast Sprayer Optimization App Available for Free Download!

This handy mobile app will help you optimize airblast applications for apple orchards. It is available for both iOS and Android operating systems. See the link below for more information.

<http://sprayers101.com/orchardmax/>

Reminder: Canada-Nova Scotia Fire Blight Initiative! DEADLINE APPROACHING

This is a reminder that **all tree fruit growers with apple and/or pear acreage** that required additional management as a result of fire blight occurring after tropical storm Arthur can apply for financial assistance under the Canada Nova Scotia Fire Blight Initiative – a Growing Forward 2 Agri-Recovery program.

DEADLINE TO APPLY FOR THIS PROGRAM IS JULY 29!

Funding includes provisions for recovery of additional chemical costs for all growers. Funding is also available for confirmed tree losses where an industry inspection report was completed prior to July 31, 2015.

For more information on the Canada-Nova Scotia Fire Blight Initiative and how to apply, see <http://novascotia.ca/programs/fire-blight-initiative/>. Questions regarding the program or eligibility should be directed to the Programs and Business Risk Management Branch of the Nova Scotia Department of Agriculture at 1-866-844-4276.

Apple Maggot Eradication Technician

The NSFGA has again obtained funding for a summer technician to aid in apple maggot control efforts. Please contact Elizabeth Nichols to report wild trees to schedule their elimination. Please also contact Elizabeth Nichols if you have completely removed blocks so records can be updated for apple maggot inspections.

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This Orchard Outlook has been published with the input of the Orchard Outlook Committee and Erika Bent (APM).

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