

Orchard Outlook



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April 26, 2017

Bud Development	Diseases	Insects
Horticulture		Events and Notices

Green tissue and wet weather have resulted in the first need for sprays on apples this year. Bud development has been fairly slow over the past week but will advance quickly if the weather forecast is accurate.

Bud Development

Checking on bud development on April 25th, Idared was at half-inch green on the Middle Dyke Road in a historically early block in the Kentville area (Figure 1). Pear will soon be at bud burst while stone fruit buds advanced little this past week.



Apple: Silver Tip – Half-Inch Green



Pear: Swollen Bud



Peach: Swollen Bud



Plum: Bud Burst



Sweet Cherry: Swollen Bud

Figure 1: Tree fruit buds observed on April 25th, 2017 in the Kentville/Greenwich area.

Degree Day Accumulations

Degree day accumulations from March 1st to April 21st show that 2017 to date is now very close to the 5- and 10-year averages (Figure 2).

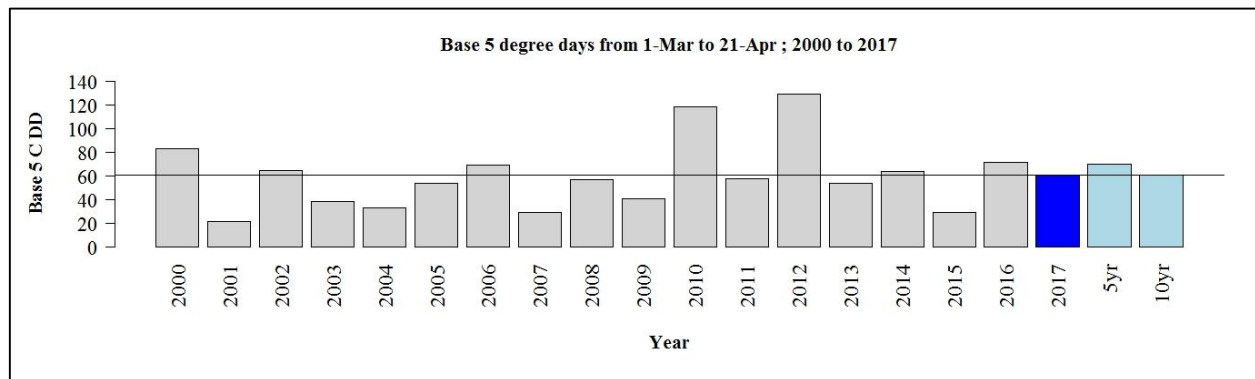


Figure 2: Degree day accumulations from March 1st for the past 18 seasons. Provided by Jeff Franklin (AAFC).

To date heat accumulation since March 1st is (Figure 2):

- About 13% fewer plant development heat units compared to the 5-year average.
- About 15% fewer plant development heat units compared to 2016.
- About 22% fewer insect development heat units compared to the 5-year average.

Diseases

Apple Scab

The sporadic snow/rain mix over this past weekend April 22nd/23rd in the Kentville area would not have caused any apple scab infection periods as wetting durations were too short and temperatures were too cold. The current wetting period ongoing at the time of publication this week will likely become the first infection period of the season. The Ascospore Maturity Model

estimates about 4% of the ascospores will have matured as of April 26th and this current wetting period will also be the first significant ascospore release of the year.

For cultivars with green tissue, a fungicide application made late last week/early this week should provide adequate protection. At this point in the season, a cover spray of an EBDC fungicide (e.g. Manzate, Dithane, Polyram) or Captan would be most economical. There is no need to consider activity on powdery mildew at this stage. Renew your fungicide protection for apple scab on about a 7 day interval, with a shorter interval after wet weather or rapid tissue growth. Protectant fungicide residues are washed off leaves with as little as a few mm of rainfall, are substantially lower after 25 mm of rain (1") and are generally completely depleted after about 50 mm of rain (2").

If you are concerned about your fungicide protection for this wetting event and need to consider a post-infection product for the coming weekend, the Group 9 fungicides Inspire Super (includes a Group 3), Scala or Vanguard would give 48-72 hours of post-infection control and work better early season under cooler conditions. They should be applied with at least a 3 kg/ha of a protectant fungicide for resistance management.

Note, if you plan to use oil for European Red Mite control later on, Captan should be avoided within 7-14 days of an oil application.

Fire Blight

Some orchards have received copper application for fire blight suppression already. However, if you have not yet applied copper for fire blight and intend to, most orchards are still at a development stage where little phytotoxicity can be expected from copper sprays (i.e. green tip). Applications beyond half-inch green or later can cause problems with phytotoxicity – provided rainfall doesn't wash most of it away by petal fall. There will still likely be an opportunity next week in many blocks to do a delayed-dormant application of copper for fire blight suppression.

See the April 19, 2017 issue of Orchard Outlook for more information on this application.

Insects

European Red Mite

For best control of ERM, oil application on apples should be delayed for now unless you are planning on tank-mixing your application of copper for fire blight and dormant oil for ERM. To be most effective, oil application for ERM should be targeted closer to egg hatch – around tight cluster.

Horticulture

- **Fertilizer**
 - Bud break to bloom is the ideal time for granular fertilizer application to maximize tree growth. Where the need has been demonstrated, foliar nutrients can also

- improve tree growth and maximize yield and quality. Foliar zinc application to correct a deficiency is most effective early in bud development and should go on in the next week or two.
- **Lime**
 - Lime addition to raise pH is best applied as soon as possible to get the product working in the top layer of soil before the season. Surface applied lime will take a number of years to adjust pH of the soil profile so it is best to apply annually or biannually if you can where it is needed. Target a soil pH of 6.0-6.5.
- **Herbicide**
 - Studies have shown maintaining weed free strips from bud break to 30-days after full bloom has the greatest impact on tree growth and yield. Timely herbicide application will ensure you make the most of the weed free window. Residual herbicides such as Chateau, Alion, and others offer a much longer weed control period than post-emergent products such as Ignite, Gramoxone, and glyphosate.
- **Pruning**
 - With bud break beginning, ensure that your youngest blocks are pruned first to ensure growth is directed into desirable leader and terminal extension.
- **Grafting**
 - The opportunity to collect scionwood for grafting has ended in most areas. It is still too early to begin bark grafting methods for top working trees.

Events & Notices

CHC Consultation: Alternatives to Imidacloprid (Admire Insecticide)

The Alternatives Working Group of Agriculture and Agri-Food Canada (AAFC)'s Multistakeholder Forum on Neonicotinoids is requesting growers complete a survey, which will be used to help identify crop/pest combinations for which there are no viable registered alternatives to imidacloprid in Canada. The survey lists registered products, grouped by crop type and sortable by pest pressure and crop sub-type. For more information see,

<http://mailchi.mp/hortcouncil/consultation-alternatives-to-imidacloprid?e=8e2a4dc8bc>.

Spanish/English Pesticide Applicator Courses

A one day Spanish/English applicators' course will be held in Truro (Douglas St. Recreation Centre) on **May 18** and in Berwick (Berwick Fire Hall) on **May 19** by Jim Jotcham and translator Marcella Meier.

This one-day course will provide formal training to Spanish-speaking agricultural pesticide applicators operating under the direct supervision of a certified applicator in Nova Scotia. The course is not preparation for the provincial pesticide applicator examination. A Certificate of Completion detailing course material will be awarded to participants.

Instruction starts at 9:00 and should be complete by about 4:00.

The fee is \$80 plus HST for a total of \$92 per participant. Lunch and breaks are on your own.

For further information and to pre-register, please contact Jim Jotcham at marbicon@eastlink.ca.

Tree Fruit Management Guides Updated

The Pome and Stone Fruit Management Guides have been updated with new crop protection products for 2017. Links are below:

Pome (Apple, Pear) Fruit Management Guide:

http://www.perennia.ca/wp-content/uploads/2015/09/2017-Pome-Fruit-Management-Guide-Final_s.pdf

Stone (Peach, Plum, Cherries) Fruit Management Guides:

<http://www.perennia.ca/wp-content/uploads/2015/09/Stone-Fruit-Management-Guide-2016.pdf>

Organic Apple Orchard Management Guide:

http://www.perennia.ca/wp-content/uploads/2015/09/2017-Organic-Apple-Management-Guide-Final_s.pdf

The Apple Scab & Powdery Mildew Fungicide Groups factsheet has also been updated:

http://www.perennia.ca/wp-content/uploads/2015/09/AS-PM-fungicide-groups-in-NS-2017_3.pdf

This Orchard Outlook has been published with the input of the Orchard Outlook Committee.

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