

# Orchard Outlook



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## In this Issue...

Where's Michelle? IFTA then NSFGA.....	1
2018 Degree Day Accumulations.....	1
Diseases.....	2
Insects.....	2
Horticulture.....	2
Weather.....	4
Events & Notices.....	5

## Where's Michelle? IFTA then NSFGA

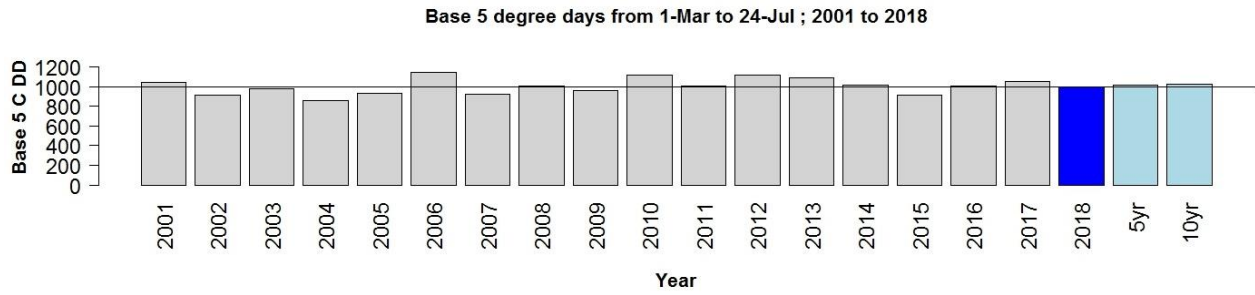
I am away from the office this week at the International Fruit Tree Association (IFTA) summer tour in Kelowna, BC. My participation in this tour has been a great opportunity to meet and learn from so many innovators in the tree fruit industry. I will soon follow up with all of you to share what I learned – I have new insights on crown gall, replant disease, high density systems, and varieties. I hope several of you enjoyed the updates I posted on my [twitter account @NSTreeFruit](#). I was not able to visit orchards this week, which has limited the content in this issue of the newsletter.

I will be happy to see you all at the NSFGA summer tour on August 2<sup>nd</sup>. Please meet us at 8:30 AM at Stirling Fruit Farms for coffee and snacks on 10317 Hwy #1, Wolfville. We are fortunate to welcome a guest speaker, Phil Schwallier, from Michigan State University who will be joining us for the day. Bring your burning questions to add to our discussion!

## 2018 Degree Day Accumulations

Degree day accumulations (base 5°C for plant development) from March 1<sup>st</sup> to July 24<sup>th</sup> show that 2018 is close to the 5-year average.

- Approximately 2% less plant development heat units compared to the 5-year average, and 3% less compared to the 10-year average.
- Approximately 5% less plant development heat units compared to 2017, and 1% less compared with 2016.
- Approximately 1% less insect development heat units compared to the 5-year average, and 1% less compared to the 10-year average.



**Figure 1: Heating degree day accumulations for plant development (above 5°C) from March 1<sup>st</sup> to July 24<sup>th</sup> for the past 17 seasons. Provided by Jeff Franklin (AAFC). All data are taken from the Kentville weather station and calculated using the single sine method.**

## Diseases

Refer to the [July 18th Orchard Outlook](#) for more information regarding apple scab, powdery mildew, fire blight shoot blight, nectria twig blight, summer diseases and stone fruit brown rot. Currently I do not have access to the Kentville weather station data, and I will wait until next week’s newsletter to report apple scab secondary infection events.

Note that now we are into some wet weather, control of brown rot on stone fruit is critical using preharvest fungicide applications.

## Insects

Insect management programs should be based on grower monitoring and/or scouting reports. Refer to the [July 18th Orchard Outlook](#) for more information regarding green apple aphid, woolly apple aphid, apple maggot, mites, and potato leafhopper.

## Apple Maggot

**Recommendations:**

- Significant rainfall will wash off insecticide residues that are needed to ward off apple maggot flies. Re-treatment is required after 10-14 days or cumulative rainfall of 12.5-25 mm (0.5-1 inch). Insecticide residue should generally be maintained through the end of August.

## Obliquebanded Leafroller

The overwintered larvae emerge in spring and feed on the leaves at first and then as they grow larger they web leaves together to feed inside. In June, the larvae pupate and adults emerge soon afterwards to lay eggs for the second generation. Larvae will feed on leaves around terminal growth and fruit clusters.

**Recommendations:**

- Scout your orchards or check scouting reports to see if there is a treatable population.
- According to Erika Bent, APM, the second generation of leafroller larvae have been observed this week – indicating that egg hatch has begun. If needed, treatment can begin asap.
- Refer to the [Pome Fruit Management Guide](#) for a list of products.

## Horticulture

Refer to the [July 18th Orchard Outlook](#) for more information regarding nurseries, site preparation, fertilizer, shoot selection, tree training, mowing, weed control, fruit thinning, and calcium sprays.

## Leaf Tissue Sampling for Nutrient Analysis

Nutrient levels in leaf tissues change with the growing season. The desired nutrient levels for apples were based on leaves being collected once the trees have stopped growing (late July to early August in Nova Scotia). Collecting samples prior to or after the specified period may give inaccurate nutrient level readings. Annual fertilizer applications should be based on tissue analysis reports and other factors such as pruning, vegetative growth and anticipated crop load.

### Recommendations:

- Collect leaves for nutrient analysis after terminal buds set on this season's extension growth. Complete sampling by mid-August.
- **The protocol:**
  - A sample usually represents a block of orchard 1 to 2 hectares in size.
  - Sample 10 apple leaves from each of 10 representative trees of the same variety for a total sample size of 100 leaves. Sample from the same trees every year to limit the variation between years.
  - Collect leaves from the mid-point of the current year's growth from all sides of the tree.
  - Place the leaf samples in a **paper** bag.
  - If there are problem areas within the orchard, then sample trees in this area separately.
  - The leaf sample needs to be submitted as soon as possible after collection in order to obtain an accurate nutrient analysis. If the sample cannot be submitted right away, refrigerate until it can be submitted.
  - Always label samples with the grower or farm name, mailing address, phone number, farm registration number, orchard block name, variety and sample number.
- Take an accurate sample by reviewing the guidelines:
  - [How to take a plant tissue test](#)
  - [Fruit crop tissue sampling guide](#)
- For fees, contact the lab or your choice or visit the [Nova Scotia Department of Agriculture website](#).

## Soil Sampling for Nutrient Analysis

Collecting a soil sample from the block will provide additional information when it comes to determining fertilizer requirements. Soil samples do not need to be collected on an annual basis but should be collected at least once every three years.

### Recommendations:

- Two to four soil cores should be taken at the drip line from each of the 10 trees. The soil cores should be mixed and a representative sample placed in a soil box for analysis. Soil boxes can be obtained from the NSDA office in Kentville.
- Early August is a good time to sample orchard soil unless the soil is unusually dry or recently leached by heavy rains. If the soil is too dry it is very difficult to extract full 0-15 cm (0-6") soil samples and a better sample will be obtained by waiting until light rain has moistened the topsoil.

## Summer Pruning

Terminal buds have set in many bearing orchards and therefore summer pruning can begin. Removing a shoot at this time in the season will not stimulate vegetative growth, unlike dormant pruning. The most important objective of summer pruning is to increase light penetration into the canopy to improve fruit colour.

### Recommendations:

- Summer pruning can help control excessive vegetative growth in orchards with reduced crop load.
- Pruning should only be done when leaves are dry to prevent spreading fire blight. Blocks with a history of severe fire blight pressure could be avoided.
- Sanitizing pruning equipment at periodic intervals is a good practice to eliminate spreading fire blight between blocks.
- Strong uprights that are tipped back will only promote several breaks to occur next spring causing more shading in the canopy. Therefore, remove strong uprights completely.

## Weather

When I left the Valley, the grass was fading, the lanes were dusty and the trees were in need of a good rain. The rain came and will certainly help! You might be wondering, 'how does this season's rainfall compare to the average season?'

I have included a map below of the past 30 days since July 25<sup>th</sup> compared with the average July. Isolated areas in the Valley are experiencing less than 40% the average July rainfall. Most in the central Valley are experiencing 40-60% the average July rainfall, and the west and east ends are experiencing 60-85% of average July rainfall.

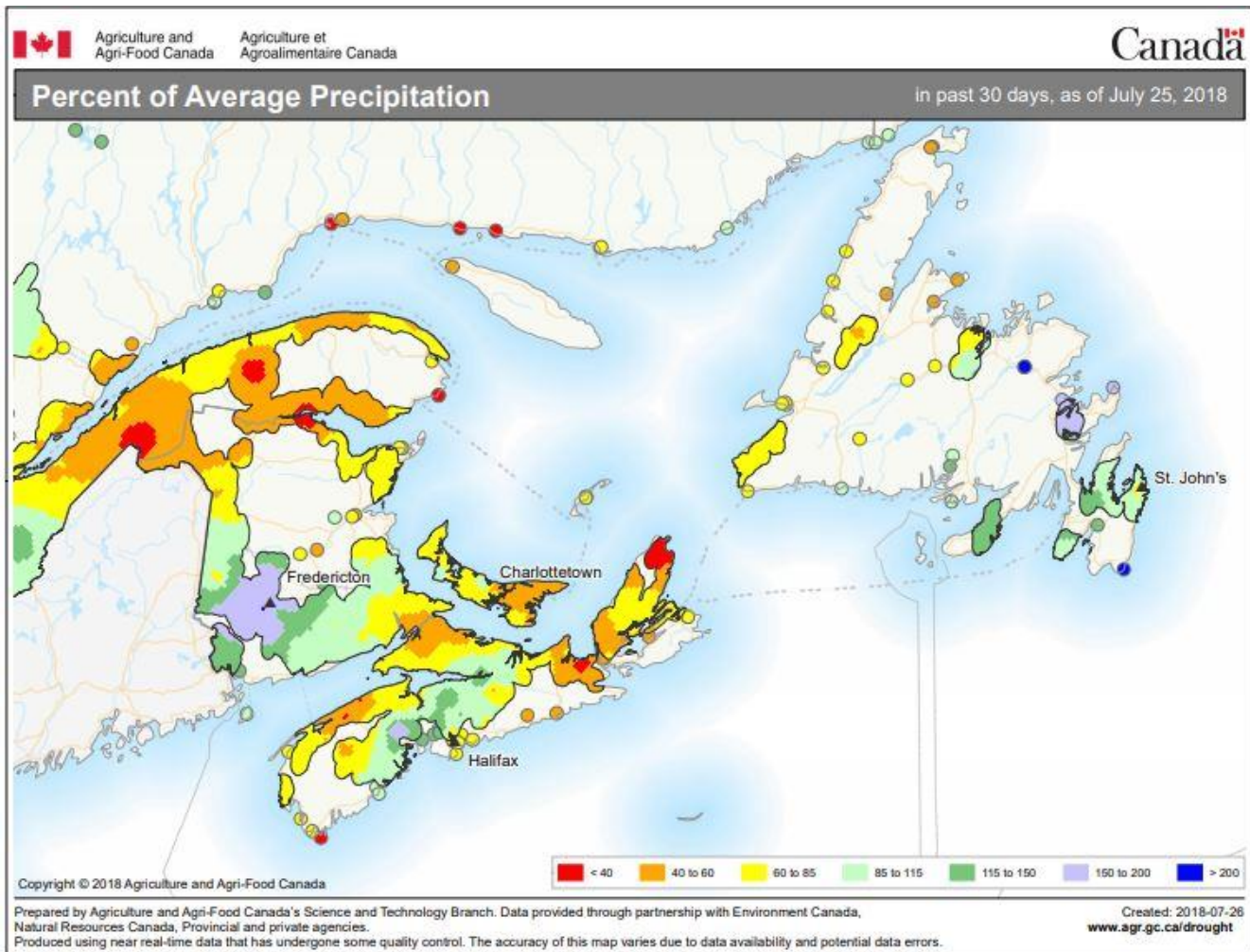


Figure 2: Isolated areas in the Valley are experiencing less than 40% the average rainfall. Most in the central Valley are experiencing 40-60% the average rainfall, and the west and east ends are experiencing 60-85% of average rainfall.

## Events & Notices

### NSFGA Summer Orchard Tour

Please mark your calendar for Thursday, August 2, 2018 when the tour will travel to the east side of the Valley. Come and ride the double-decker Wolfville Magic Winery bus for the whole tour and add to your experience some comfort and style. We look forward to seeing you there. Please refer to the [July 11<sup>th</sup> Orchard Outlook](#) for the agenda.

### Canadian Agricultural Partnership (CAP) Nova Scotia Cost-Shared Programs

Eligibility usually requires a current farm registration and income & expenses that show income of at least \$30,000. After clients apply through Programs and get approved, eligible costs toward approved projects can be claimed retroactively to April 1, 2018. Deadlines are approaching. Visit the [Nova Scotia Department of Agriculture CAP website](#) to apply.

### Small Farm Accelerator Program

The [Small Farm Acceleration Program](#) has been launched. This program is designed for farms with farm income up to \$60,000 and applicants relinquish their ability to apply for other funding programs (except limestone transportation) while using these program dollars toward their eligible projects.

## 10th Annual Environmental Farm Plan Stewardship Award: Open for Applications!

The Environmental Farm Plan Team is once again looking for nominations and applications for our annual Stewardship Award. **What's the Prize?** The winner receives a \$2000 cash award and a painting of your farm by a local artist. **The deadline for applications is August 6th, 2018.** Please visit our website: [nsfa-fane.ca/efp](http://nsfa-fane.ca/efp). For more information and to get an application form or talk to an EFP coordinator at (902) 893-2293.

### Hyperlinks to Tree Fruit Management Guides

- [Pome Fruit](#)
- [Stone Fruit](#)

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