

**This issue contains:**

- Notice of Grower Meeting
- Fruit Development
- Diseases
- Insect Activity
- Horticulture
- Up Coming Events

## Noon Hour Meeting

An orchard walk will take place on Thursday, June 10<sup>th</sup> for organic apple growers and those interested in organic apple production. The meeting will take place at the AAFC Sheffield Mills farm and get under way at noon (12:00pm-1:00pm). Insect, disease and crop load management issues will be discussed.

## Fruit Development

Fruit development has been slow as a result of the cool temperatures that occurred for much of the past week. Orchard visits on Monday, May 31 indicated that mid season cultivars such as McIntosh and Cortland were in the 8-9 mm size range Spy and Gala 6-7 mm and Gravenstein and Paulared in the 10-12 mm. Pears were also in the 10-12 mm range. Stone fruit were at suck fall and beyond.

### 2010 Degree Day Accumulations

(Temperature data provided by Jeff Franklin, AFHRC, Kentville)

Table 1.0 Degree day accumulations as of May 31, 2010 taken from Kentville weather data. Degree day accumulations are calculated using the single sine method and are based on a start date of January 1, 2010.

Category	2007	2008	2009	2010	5 year average
<b>Plant development (Base 5°C)</b>	268.0	294.9	318.6	385.0	300.4
<b>Insect development (Base 10°C)</b>	108.8	105.5	130.5	155.5	111.8

## Rain

Kentville recorded a rain accumulation of 58 mm and Greenwood 57.2 on June 1.

## **Diseases**

### **Apple Scab**

Two secondary apple scab infection periods were recorded at Kentville during the past week. The first infection period resulted from a wetting period that began on Tuesday, May 25<sup>th</sup> around midnight and lasted until 8:00 am on Thursday, May 27<sup>th</sup>. The average temperature was 10°C. The second infection period was a result of yesterday's rain. Kentville did not record the start of the wetting period until 12:45 pm even though some light shower activity occurred earlier in the morning. In some areas of the Valley the wetting period may have begun in the early morning. The wetting period was still ongoing at the time of writing this Orchard Outlook. The average temperature for the past 19hrs has been 10°C.

Primary spore release is now complete and growers can go to a cover spray program. The decision to reduce rates and increase the interval between sprays will depend upon the presence or absence of scab lesions. Do a thorough check of the orchard block before switching to a cover program.

Just a reminder that after yesterday's rain fall, a lot of residue would have been washed off and a 14 day interval from your last spray may not be a good idea.

### **Fire Blight**

During the past week temperatures have remained cool and thus the risk of infection has remained low to moderate. The risk went to high for yesterday however the bacterial levels were not high enough for an infection to be triggered. Monday's prediction was for an infection on Friday, June 4<sup>th</sup> and this was based upon highs of 23°C on June 2, 25°C on June 3 and 25°C on June 4. The actual high for June 2 was 11.9°C. Given the temperatures for the next three days being much lower than those placed in the model there is a strong chance the risk will drop to low to moderate for the remainder of the week. A high majority of bearing apple trees are now at calyx with very little bloom around with the exception for the Medford area. The real risk for the next couple of weeks will be for newly planted trees that are just coming into bloom. If you are unable to remove the bloom from these trees then you should be prepared to apply streptomycin when the risk becomes high and a wetting event may occur.

Symptoms of fire blight from the May 25<sup>th</sup> infection should begin to appear later next week if control was not obtained. Shoot infection from active cankers could also begin to show up next week.

### **Powdery Mildew**

This fungus will continue to spread while there is new leaf growth and the rate of spread will depend upon temperatures. Based upon orchard observation if a fungicide is required to slow

the spread of powdery mildew, select a fungicide that controls both mildew and apple scab. A new fungicide option is Pristine WG at 1.0-1.2 kg/ha which controls both apple scab and powdery mildew. The product does not need to be mixed with a broad spectrum fungicide unlike Flint, Nova and Nustar.

## **Insect Activity**

### **Codling Moth**

Codling moth flight has begun therefore traps should now be hanging in the orchard. In discussions with Dr. Rob Smith we set Saturday, May 29 as the biofix date for determine egg hatch and treatment periods. The following is information is possible treatment dates that were provided Jeff Franklin.

Based on a biofix date of 149 (Julian days) May 29, and Degree day accumulation (base 10.0 Celsius)

JD	Date	Max Temp	Min Temp	DD	Acc_DD
149	May 29	23.6	8.6	6.3	117.3
150	May 30	20.7	6.7	4.4	121.7
151	May 31	17.2	8.2	3.0	124.7

Average accumulated heat units since biofix have been 4.58 degree days per day.

Based on this historical data, estimated time to treatment is 19 days for Confirm or June 19, and 27 days for OPs or June 27.

Based on forecasts from Environment Canada, estimated heat units for the next 5 days could be 6.1 degree days per day. Based on this forecast data, estimated time to treatment is 14 days for Confirm or June 14 and 21 days for OPs or June 21. The predicting date for the timing of treatment will become more accurate as daily temperatures are added.

Confirm, Rimon, Intrepid, Calypso, Deligate and Altacor applications should be timed for approximately 210 DD after biofix while OPs should be applied at 250 DD.

### **Brown and Mullein Bug**

The consensus at this morning's Orchard Outlook meeting was that the population of this two stinging bugs is up over those of last year. Now is the time to be monitoring for these two pests. If you are doing your own trapping a total of 8 stinging mirids, of either or combination of both per 20 traps would indicate a treatment is required.

## **Rosy Apple Aphid**

The sooner growers can determine the need to treat for this aphid the less likely hood of fruit damage. The pesticides registered for the control of rosy apple aphid tend to work slower than the products that were available in the past thus the importance of earlier applications than late season treatments.

## **Green Apple Aphid**

Check young and newly planted apple trees for the presence of green apple aphid. This aphid can adversely affect shoot growth.

## **Mites**

Agri-Mek plus Superior Oil should go on as soon as possible were mite populations need to be controlled. This product works best when applied to newly expanding leaves. The timing of Apollo should be for the start of egg hatch of European red mite. Thus mentoring is required to get the timing right.

Check pear block for the presence of rust mite. High populations of this mite can cause russetting on pears.

## **Horticulture**

### **Apogee**

The first application should be on by now. The second application should go on within 14 days of the first application.

### **Fruit Set and Thinning**

Now is the time to be checking orchard block to see if a thinners needs to be applied. You should now be able to get a good idea on how good the initial set was and if a thinner needs to be applied to reduce the crop load. Determining fruit set on Gala and Northern Spy still maybe a bit difficult. I have be looking at Gala that had an excellent bloom however I am getting a feeling that cluster may have set only singles and doubles which still would benefit from a thinning treatment. The fruitlets on Gala are still less than 8mm so there is still a few days before you need to decide if a thinner is required. Fruit development has been slow and I have not seen any situations where the average fruitlets size is beyond 12.5 mm. Given the long range forecast for the next 5 days (cool and wet) you will have plenty of time to apply thinners. Wait for good spray conditions and then apply thinners.

## **Nutrient Sprays**

Post bloom is a period when the following nutrient can be applied as foliar sprays, nitrogen, boron and magnesium. The need to apply should be based upon observation or tissue analysis report which indicates a deficiency. Urea can be applied to increase the foliar level of nitrogen, Solubor to supply boron and reduce cork rot around the core of apples and Epsom salts to reduce a magnesium deficiency. Do not use boron or oil with Epsom salts. The dilute rate for these products is Solubor 1.5kg/1000L, Epsom salts 20kg/1000L and Urea 6 kg/1000L. When applied as a concentrate spray the rates should be cut by a half to reduce the risk of foliar burn.

## **Side Dressing Newly Planted Trees**

Newly planted trees will benefit from a side dressing of nitrogen in late June. Even though many growers were able to plant earlier it would be best to wait until the later part of this month before making the second fertilizer application. May was quite dry and there is a good chance that the first applications have not even been picked up by the roots yet.

## **Herbicide Application and Tree Damage**

Visiting orchards to look at fruit bud development and fruit set I continue to see symptoms of glyphosate to the lower limbs of trees. Just a reminder to use caution when apply herbicides as spray drift onto the foliage can cause damage which may not become apparent until the following year.

## **Upcoming Events**

### **NSFGA Annual Orchard Tour**

The NSFGA annual orchard tour will take place on Tuesday, August 3<sup>rd</sup> starting and stopping at the picnic grounds at the Kentville Atlantic Food and Horticultural Research Centre.

### **IFTA Summer Tour**

This study tour will take place from July 28 to 30<sup>th</sup> in New York. You can register for the tour at [http://ifruittree.site-ym.com/events/event\\_details.asp?id=90652](http://ifruittree.site-ym.com/events/event_details.asp?id=90652)

*Contributions and consultations were made in the preparation of this newsletter with the Orchard Outlook Committee*

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