



ORCHARD OUTLOOK

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2008 Degree Day Accumulations

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

Table 1.0 Degree day accumulations as of April 27, 2008 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, 2008.

Category	2005	2006	2007	2008	5 year average
Plant development (Base 5°C)	92.0	116.3	84.9	102.8	88.9
Insect development (Base 10°C)	25.6	27.1	26.7	26.4	22.2

Fruit Bud Development

On Monday April 27 apple buds varied from half inch green to dormant, depending upon the cultivar and location. Early cultivars were between green tip and half inch green, while mid-season were at green tip and Northern Spy were still dormant. Pears were mostly at the swollen bud stage with a very small number at the bud burst stage. The cooler temperatures from last Thursday on into the weekend slowed bud development. You will note in the above table that, in terms of 5 °C, we are ahead of the five-year average and this would explain the early bud development.

Apple Scab

The wetting period which began early last Thursday April 23 and lasted into Friday morning did not result in an infection period because of the cool temperatures during the wetting period. It is my understanding that, in some areas, the wetting period began Wednesday evening and, where this

happened, the wetting period would have been long enough to establish an infection period. At the time of writing the Orchard Outlook there was an ongoing wetting period, however, it is supposed to dry off this afternoon, and if so there will not be an infection. The long-range forecast is for wet weather on Thursday and Friday so if you have already applied a fungicide for scab control one should go on ASAP.

In the March 15, 2008 Orchard Outlook I wrote about the importance of controlling the development of resistance of apple and pear scab to fungicides. Now that the spray season has arrived and the second guessing and gambling begins with regards should a cover spray be applied, or will a post infection spray be applied to kill germinating scab spores, it would now be a good time to review this article. At this point in the growing season, the main fungicide options should be Maestro/Captan, Dithane/Manzate/Penncozeb, Dikar, Polyram, Scala, Vangard and copper. The use of Superior Oil will dictate if Maestro/Captan is an option as it should not be applied immediately before or closely following an oil spray (7 days prior to and 7 days following should prevent any toxicity problems). The cost of Dithane and Dikar compared to the other products will have an influence on their use. Scala and Vangard are relatively new options with Scala being the newest. Given the increase in apple scab infection last year and the use of Scala for the first time, some growers may feel that Scala failed to provide adequate control. To properly determine this, growers would need to determine that the scab infections took place when Scala was applied or compare the results of another fungicide applied at the same time with the control obtained with Scala. Scala is rated as having 48 hrs post-infection activity and this is based upon the start of the wetting period. If a producer is not comfortable with using a new product on all his/her orchard block, then treating a fraction of the acreage or just one block would allow the producer to evaluate the product.

Powdery Mildew

At this point in the growing season it is too early to be applying treatments for powdery mildew. Powdery mildew was not a serious problem for producers last year and, in Nova Scotia, mildew is still considered a minor disease of tree fruit. Seldom do we see, or can attribute, fruit russetting to mildew infections; occasionally infection can become serious enough to cause leaf drop. What we consider to be serious problems with mildew are likely mild compared to warm growing regions where mildew is more of a problem than apple scab. The SS and Stoblin fungicides generally provide the pest control of mildew; however, mildew and apple scab can develop resistance to these products over time and with repeated usage. Yes, treat for mildew with these products during the tight cluster to calyx stage of development, where mildew was easy to find last year. However, if mildew was not a problem, only use these products for apple scab control when required.

Fire Blight

There is still time to apply copper to assist with fire blight control. You should be able to apply copper just beyond the half inch stage of bud development without the risk of causing fruit russetting. Copper applied prior to an apple scab infection period should also control scab. If applied after an infection period then a fungicide with post infection activity should also be applied to control apple scab. If you are still pruning in orchard blocks where fire blight infection was present last year disinfect your

pruning block before entering a block where fire blight was not present would be a good cautionary exercise.

Insect Activity Report

Dick Rogers of Wild Wood Lab, as in previous years, will be providing me with a weekly update on insect activity from three orchard blocks: Greenwich, Morristown and Aylesford. On Monday April 27th he reported observing overwintering leafroller which he felt were likely OBLR because of their size, first instar winter/pug moth, grain aphids and pear psylla eggs. At this point in the growing season it is too early to be worried about insect treatments with the exception of European red mite.

Pear Psylla

One would question the financial benefit of applying oil for psylla control at this point in the growing season. Oil would discourage the laying of eggs into May, however would not control the eggs that have already been laid. If you have not applied oil, you may want to wait until to calyx to assess population numbers and treat with either Agri-Mek + Oil, Pyramite or Assail which have been effective in recent years.

European Red Mite

Overwintering egg numbers should be assessed to determine if application of Superior Oil 70 Sec is a viable treatment option. Sampling for winter eggs involves collecting 30fruit spur (3 cm of wood and spur) from 10 trees. Count the number of eggs on each spur and assign a score based upon the following:

Score	Number of Eggs
0	0
1	1-10
2	11-15
3	51-100
4	>100

You do not need to count every egg but do close examination and make an estimate. Once all the spurs have been scored individually on the Basis of ERM egg abundance, the average score is calculated by dividing the total of the scored by the number of fruit spurs. The needed to treat is based upon the following scores.

Threshold (avg Score)	Recommendation	Timing
0	No treatment	-----
1	Superior oil 70 sec	Green tip-tight cluster

The closer the oil application can be timed to the start of egg hatch the more effective it will be. Egg hatch begins just prior to or around pink however trying to apply oil to all block at this time is usually very difficult because of weather conditions and the time it takes to apply with a minimum of 1000 L of water per hectare. Applying oil during cold weather, just prior to or following a frost can increase the damage to the foliage. Growers would be advised to start applying oil once bud development has reached the half inch stage during periods of fine weather. The goal should be to have all blocks requiring treatment done by tight cluster. A reminder that two Spotted mite is not controlled by oil.

Vegetation Control

The grass is growing which means weeds are germinating; thus, it is not too early to be thinking about herbicide applications. Growers planning to apply a residual herbicide such as Princep or Sinbar – the application should be made before the weed growth becomes too tall or covers the ground preventing the herbicide from making soil contact. New bramble shoot growth has begun and application of glyphosate and 2,4-D should go on by next week to control this growth.

Tree Planting

It's not too early to start planting trees and rootstocks where soils are dry.

Organic Apple Production

It was not too long ago that the US states on the eastern seaboard were saying that organic apple production on the east coast was not viable and was only for the west coast where production takes place under dry weather conditions. Reading the trade journals this past winter, I note a change in attitudes as more states have set up research trials to investigate and demonstrate organic tree fruit production. The change in attitude may be because of public pressure, the continued increasing demand for produce produced under organic guidelines or the introduction of new pesticide that has been approved for organic production. The news that Ontario intends to pass legislation to ban the use of cosmetic pesticide for residential use is also an example of the public's continued concern regarding the use of pesticide. For those who are not aware, AAFC has been conducting research trials and managing orchard block under organic guidelines since 2000. A working group has been established consisting of federal, provincial, growers and consultants to discuss issues such as certification, production, marketing and research. If you would like to become a member of this group you can do so by contacting Sonya Shaw (ShawS@AGR.GC.CA). Noon hour walks are held several times during the growing season to observe disease and pest pressure and to discuss timely topics such as pest control, fertility crop load management, vegetation control and, cultivars. The meetings are open to all interested parties beginning shortly after 12:00pm and run for about an hour or as long as there is discussion. **The first noon hour meeting for organic apple production will take place on Thursday May 8th 12:00 pm at Rob Piles organic orchard block which is located half way across Magee Rd in Starrs Point.**

Educational tour opportunities available to IFTA members in the next few months:

1. Annual Short Orchard Tour: South Carolina, North Carolina
 - a. 22-25 June 2008
 - b. The 2008 Annual Orchard Short Tour will highlight peach production in The Ridge and Piedmont areas of South Carolina and apple production in Henderson County, North Carolina. Come join IFTA in exploring Greenville, SC and Asheville/Henderson, NC as we enjoy some true Southern Hospitality and educational fruit tours.
2. Study Tour: France
 - a. 27 July – 07 August 2008
 - b. The 12-day Study Tour will take place throughout France and include visits to many of the major growing regions for pip and stone fruits. This is an opportunity to learn firsthand about the tree fruit industries in France as well as the country's history, culture, cuisine, geography, and agriculture.
3. Registration and itineraries are posted on the IFTA website at www.ifruittree.org.

Registration deadline for both these opportunities: 30 May 2008.