Agra Point
ORCHARD OUTLOOK
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This issue contains:

Orchard Outlook

This will be the last of the weekly issues of the Orchard Outlook for the 2008 growing season. It will, however, be published periodically until the start of the 2009 growing season. The program for the NSFGA annual orchard tour will be e-mailed out next week.

2008 Degree Day Accumulations

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

Table 1.0 Degree day accumulations as of July 20, 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 5ºC)	885.4	1110.4	892.3	981.9	924.8
Insect development (Base 10º)	474.4	641.6	488.3	541.8	515.9

Weather

In terms of heat units, the 2008 growing season has been fairly decent – better than the five year average but not as good as 2006. Rain fall recorded at Kentville for the month of May was 93.6 mm, which is comparable to the five year average of 87.6 mm; however, June's average was 41.8 mm, which is well below the five-year average of 94.8 mm. As of July 22, a total of 47.2 mm of rain has been recorded at kentville. Of this total, 26 mm has been record since this past Friday. The five year average for July is 79 mm.

Apple Scab
Several wetting period have been recorded at Kentville since last Friday which could have resulted in secondary infection periods. The wetting periods starting Friday, Saturday and Sunday were all long enough for an infection to establish.

We have reached the point in the growing season when there may no longer be a need for routine fungicide applications to apple scab control. This should be based upon the amount of scab that is present in an orchard. If scab cannot be found then a **full** rate fungicide application the last week of July should carry the orchard through to harvest time. If scab is easy to find, it would be advisable to apply at least one fungicide in August, particularly if there is a prolonged period of wet weather and another one in September. Last year there was a fair amount of scab on the fruit and foliage, and this contributed to an increase storage scab showing up on the packing line. Storage scab occurs as a result of infections that take place in the fall prior to harvest and placement of fruit in the storage room. However, the pin point lesions develop while the fruit is in storage. The infection does not occur in storage from fruit that has scab on it. These fall infections take place during prolonged wetting periods. It is felt that it takes 48 or more hours of wetting for the infection to occur. The application of Maestro/Captan in the fall for storage rots will also provide protection against these late season infections.

Fire Blight
Continue to monitor orchard block for signs of fire blight and remove infected shoots when observed. The incidents of shoot infection should decline as shoot growth slows. Young orchard block should, however, be monitored right into the fall while there is still active shoot growth.

Fly Speck and Sooty Mold
These two secondary diseases are classed as summer diseases and can present problems when growers terminate their fungicide programs too early in the growing season. The application of EDBC-class fungicides and Captan during the summer months generally provides adequate control of these fungal diseases. If August is abnormally wet then growers should consider an August fungicide spray to control these diseases. Summer pruning to open the tree to better light penetration will also improve air circulation, which in turn will dry the foliage quicker and reduce infection of the fruit by these two diseases.

Apple Maggot
Apple maggot treatments should be ongoing. Treatment should be based upon trap captures with the capture of one or more flies indicating treatment is required. The trap should be cleaned of maggot flies at the time or within 7 days of treatment. The capture of additional maggot flies (10-14 following treatment) would warrant a second treatment. Products of choice to control maggot are Guthio/Sniper, Imidan, Zolone and Calypso. Just a note of caution: Zolone has a 30-day pre-harvest interval which could present a problem for apple cultivars harvested in August. Calypso does not kill the adult flies, therefore maggot flies still could be caught following treatment. A sustained trap capture of maggot flies seven days following treatment would likely warrant a second maggot spray. The new insecticide Delegate is registered as providing suppression of maggot and not control. Until

there is a better understanding of how effective this product is for maggot control, it should be used cautiously.

Mites
Continue to monitor for European red and two-spotted mite and treat when thresholds are reached.

Kanemite® 15 EC
The miticide Kanemite, which received registration as of July 2007, is now available to Nova Scotia tree fruit producers for the control of European red and two-spotted spider mite on apple and pears trees. The active ingredient is acequinocyl which is a new chemistry belonging to group 20B. There is no known cross resistance to other miticides. The product is rated as being safe to practically non-toxic to bees, beneficial insects and predatory mites. The pre-harvest interval is 14 days and the re-entry interval 12 hours. The recommended rate per hectare is 2.07 L which should be applied with enough water to provide through coverage of the foliage. It works primarily by contact, thus the need for through coverage. Do not apply twice per year or in back-to-back applications.

Pear Psylla
Continue to monitor for this pest as it can still build in the orchard. Under dry weather conditions, the pears can become quite sticky from the honey dew this sap-feeder produces. Sooty mold will also grow on the honey dew resulting in pears that are not marketable. At this point in the growing season, adults, eggs, newly-hatched nymphs and old nymphs can be found. Select one of the products listed in the spray guide. Pyramite, Assail and Actara will provide better control then an OP or one of the prythriods in pear block where psylla has developed resistance to these class of insecticides.

Horticultural Tips

Tissue and Soil Analysis
The collection of leaves for nutrient analysis can begin when the terminal buds have set on shoots. This generally occurs on mature trees during the later part of July and into early August. Sampling should be completed by mid-August. Nutrient levels in leaf tissues change with the growing season and the desired nutrient level range 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, vegetation control and anticipated crop load.

The following information is for growers who will be collecting their own samples or giving instruction to hired staff. A sample usually represents a block of orchard 1 to 2 hectares in size. The sample consists of 100 apple leaves collected from 10 trees of the sample cultivar. It is suggested that the trees be marked, and that they represent a typical tree within the block, so that the same trees can be sampled on a routine basis. This will help to eliminate some of the variability in yearly reports. If there are

problem areas within the orchard, then sample trees in this area separately. Ten leaves per tree are collected from the mid-point of this year's terminal growth with terminals being sampled from all sides of the tree. Place the leaf samples in a paper bag (in the past 10 lb brown paper bags were used). The leaf sample needs to be dried as soon as possible after collection, preferably the day of collection, in order to obtain an accurate 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. 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.

The cost per sample including HST for registered farms is $12.29 for tissue and $7.22 for soil. Boxes and bags need to be clearly identified with the following information: Grower or farm name; mailing address; phone number; farm registration number; orchard block name; cultivar and sample number Soil boxes can be obtained from the Nova Scotia Department of Agriculture office in Kentville.

NSFGA Orchard Tour

Tour date is Tuesday August 12, 2008 with the start and stop location at Boat's U-pick in Woodville. Details of the tour stops will be provided later this month. The program for the orchard tour will be sent out next week.

Half Day Tree Fruit and Berry Tour

Apple Farmers' Association of Nova Scotia is sponsoring a Tree Fruit and Berry Tour on Thursday, July 31st. The tour will start at 1 pm at Barteaux Farms, 806 Highway #201 in Moschelle (just east of Annapolis Royal) and at about 3 pm will move to Chipman Farms, 2497 Highway #201 in Tupperville. The tour will take in the following crops: apples, peaches, strawberries, raspberries, blueberries and cranberries. Bill Craig and John Lewis from Agrapoint will be there to share their knowledge. Anyone interested in any of these crops is welcome to attend.

HCORP Deadline

The deadline for 2009 HCORP applications is July 31, 2008. Please review revised 2008 & 2009 HCORP Technical & Administrative Guidelines, application form and letter of agreement which are available from the NSFGA office (678-1093) or may be viewed on-line at the NSFGA website: www.nsapples.com . If you are going to apply to plant in 2009 please be sure to have your completed applications to the NSFGA office by July 31, 2008.

Contributions and consultations were made in the preparation of this newsletter with the Orchard Outlook Committee and Dick Rogers of Wildwood Labs.