Agra Point
ORCHARD OUTLOOK
10 Webster St., Suite 210 | Kentville, Nova Scotia B4N 1H7 | (902) 678-7722 | www.agrapoint.ca

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This issue contains:

2009 Degree Day Accumulations

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

Table 1.0 Degree day accumulations as of June 1, 2009 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, 2009.

Category	2006	2007	2008	2009	5 year average
Plant development (Base 5ºC)	396.4	285.0	314.8	325.5	301.7
Insect development (Base 10º)	167.7	117.2	115.3	132.9	115.7

Weather for May

Weather data collected at AAFC Kentville shows that May was warmer than average with a mean temperature of 12.4°C compared to the 48 year average and last year's average of 10.6°C. The highest temperature for the month was 29.6° C and the lowest 0.6°C. Precipitation total for May was 58.3 mm compared to 93.9 mm in May of 2008 and the 48 year average of 80.2 mm.

Fruit Bud development

The following is based upon orchard visits made on Tuesday, June 2 from Medford to Aylesford. Apple orchards, on the floor of the Valley, were at calyx. There were still lots of bloom on the later cultivars in Medford with petal drop beginning on Northern Spy. On the slopes of the North and South Mountain there was still some bloom on the later cultivars especially Honeycrisp and Northern Spy. Early and mid season cultivars were at calyx. The largest fruit observed were at 9 mm being Gravenstein and Idared. The largest McIntosh were at 6-7 mm.

Pears are at calyx with fruit being beyond 8 mm. Cherries and plums were at the tail end of shuck fall and the shucks on peaches were beginning to split.

Apple Scab

Two apple scab infection periods were recorded at Kentville during the past week. The first infection began around 10:00 pm on Wednesday, May 27th and lasted until 10:00 am on Thursday, May 28th. The average temperature during this 12 hour wetting period was 11°C and the infection was classed as light. The second infection period began around 10:00 pm Friday evening May 29th and lasted until 10:00 am on Sunday May 31st. The average temperature during this 36 hour wetting period was 15.6° c and the infection was classed as heavy. The prediction model has ascospore maturity at 100% which means secondary infection will be the main concern for the remainder of the season. As it will be a couple of more weeks before all infections from primary infections show up, growers would be encouraged not to switch to cover rates until at least next week. All blocks should be monitored for scab or severity of scab prior to making the switch.

Fire Blight

The one good thing about last week's cooler temperature is that it did not allow for the buildup of fire blight bacteria on the pistils of floors. Even though it rained twice there were not enough bacteria to cause an infection. The continuation of cool temperature has the risk at low until June 5th. There is still a considerable amount of bloom on later cultivars in the cooler parts of the Valley therefore predictions will continue into next week. Alerts will be sent out when there is a high risk of infection.

Powdery Mildew

Continue to monitor for this disease on sensitive cultivars such as Cortland. If additional sprays are required and you have already applied two Nova or Nova and two Flint or Sovran; consider the use of another fungicide such as Dikar or Senator for resistance management purposes.

Gloeosporium and/ or Phytophthora Infections

It was reported at this morning Orchard Outlook meeting that there is an occurrence of tree death and/ or portions of apples trees are dying. This is the result of one of the above organisms. The infections take place in the fall during wet weather with the symptoms appearing in the spring around bloom time. If only a portion of the tree is dead, prune out the infected area. Quite often the tree will fully recover in a year or two.

Insects

Now that trees are at or approaching the calyx stage of development there are a number of orchards that need to be monitored and treated when threshold hold levels are meet. I would refer you the tables in the May 27th issue of the Orchard Outlook as to what insects need to be monitored for and the pesticide option for treating one or more pest.

Green Apple Aphid

Young orchard planting should be checked on regular bases for the presence of this aphid. High numbers of this aphid on young tree can reduce vegetative shoot growth.

Codling Moth

Cool windy nights are not suite to codling moth flights thus Dr. Rob Smith reports that he has not observed any trap captures to date. It would be expected that flight should begin soon and once sustained trap captures have been observed that prediction model will begin for the timing of treatments. Growers that do their own monitoring; traps can be place in the orchard once bloom has been completed.

European Red Mite

The warmer grower season to date has appeared to have advanced the development of European red mite in the Kentville area. It was reported during this morning's meeting that adult, eggs and newly hatched nymphs were present. It was felt that Apollo could be applied next week in blocks where there very few adults with the majority of the stage of development at eggs and newly hatched nymphs. Agri-Mek plus oil is another good option for this time of year. These two products will also provide control for two spotted spider mite.

Plum curculio

Treatment for curculio control should have been applied to plums and cherries by now. A second treatment could go on in blocks that had a heavy infection last year.

Pear Psylla

Pear orchards should be checked for the level of psylla and treated where required.

Horticultural Tips

Fruit Set

My observation on fruit set from orchard visits was that the set was good however there was still considerable bloom on the later cultivars. There is always some concern on how well the fruit is set when bloom occurred during cool temperatures. Time will tell how much of the fruit that appears to have set will drop off.

The following article has been prepared by Doug Nichols, NSFGA and Charlie Embree AAFC.

Fruitlet Thinning 2009

The conclusion of the 2009 seasons bloom period and pollination conditions were less than desirable. Below normal temperatures and overcast conditions have prevailed during the past week. Pears and early bloom apple cultivars are set heavy in most orchards. Late bloom cultivars such as Northern Spy, Golden Delicious and Honeycrisp bloomed when pollinations condition were poor. A careful assessment of fruit set will be necessary early next week prior to thinning applications.

If there is any concern about the need for thinning an effective strategy is an initial low rate of Sevin XLR at early fruit development (5-7mm). On later assessment if more thinning is required a second application at the 10 to 15 mm fruitlet stage would still add significantly to the thinning effect.

Growers need to finalize their thinning program for the 2009 season as fruit size approaches 7-8 mm. A great place to begin is by reviewing your records from previous seasons as well as the Fruitlet thinning options summarized on the back page of the Tree Fruit Research in Plant Growth Regulator 2008 Report recently sent to growers. If you have not received a copy and would like one please call 679-5708 or 679-5706 and leave a message.

Recent studies where Fruitone N and MaxCel alone and with the addition of Sevin XLR were tested resulted in improved fruit size at harvest and good return bloom when compared to untreated control. MaxCel will improve fruit size in addition to thinning. Growers wanting to try Maxcel at 75ppm should tank mix with a high rate of Sevin XLR for adequate thinning on smaller fruit size cultivars such as Gala and Ambrosia.

In summary the forecasted weather conditions for the next six days coupled with the intense bloom conditions experienced in many orchards in 2009 indicate to us that “easy” thinning conditions are expected.

Nutrient Spray

Apple trees often come out of the bloom period with foliage that is pale in colour. Up to now the trees have been running on stored reserves of nitrogen and have yet to make use of spring applied fertilizer. A foliar application of urea can provide a nitrogen boost to the tree increasing set and chlorophyll development. The dilute rate of urea is 18kg per hectare. When apply urea in a concentrate spray reduce the per hectare rate by at least half to reduce the risk of foliar burn and damage to the fruit. Avoid applying urea under slow drying conditions as this may also contribute to fruit russeting.

Noon Hour Meeting on Organic Orchard Production

The second noon hour organic orchard walk of the 2009 growing season will take place on Thursday, June 11th at Brian Boate's farm in Woodville. The discussion will get under way shortly after 12:00 pm and cover issues such as disease, insect and weed management as well as fruit set and crop load management. All growers are welcome to attend.

Contributions and consultations were made in the preparation of this newsletter with the Orchard Outlook Committee and Dr. Rob Smith

Editor: Bill Craig

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