

Orchard Outlook Newsletter

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The technical information contained in this Orchard Outlook publication is the result of the combined professional opinions of employees of AFHRC and ADI.

Apple Scab

No infection periods were recorded at Kentville during the past week. The heavy rain shower Monday morning starting at 2:00 am resulted in a 7.5 hour wetting period, with an average temperature of 15°C. This was 2 hours short of an infection period. To date no serious scab lesions have been reported in commercial sprayed orchards and it would appear growers have been able to get a better handle on scab control this year compared to last year. Growers should be able to tell within a week's time if they ran into any problem controlling scab through the late bloom to calyx period.

Powdery Mildew

This is just a reminder to keep a watch out for mildew on sensitive cultivars such as Cortland, Gravenstein, Paulared, Idared, Honeycrisp and Jonagold. Fungicide applications at this time of year are more protective in nature than being an eradicant. The concern in regard to the spread of mildew, is that the weather will turn hot and humid, which is conducive to its spread.

The following items on degree days and codling moth are provided through the IFP Initiative by Dr. Rob Smith & Michelle Larsen

2002 Degree Day Accumulations

Table 1.0 Degree Day (DD) accumulations as of June 24, 2002 based on Kentville weather data.

Category	1999	2000	2001	2002	5 year average
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Plant development (Base 5°C)	707.1	536.4	463.3	483.7	563.3
Insect development (Base 10°C)	360.7	225.2	209.4	210.0	265.6

Codling Moth (CM)

If an insecticide application for CM is warranted (the threshold is 40 cumulative moth captures assuming a full crop load - **see the Codling Moth Management Decision Table**), sprays should attempt to target 3% CM egg hatch. The biofix, or first sustained flight of CM, occurred on June 10, 2002. Following the biofix, degree days begin to be accumulated in order to predict 3% egg hatch. Once 250 DD₁₀ have been reached, 3% egg hatch occurs and organophosphates such as Zolone, Imidan and Guthion can be applied; Zolone and Imidan are recommended over Guthion. Confirm, a moult-accelerating compound, should be applied at 211 DD₁₀. Confirm is effective when the 1L/ha rate is applied as two 500 mL sprays spaced at 7-10 day intervals. The following table shows degree days accumulated following the biofix from various Valley locations:

Table 2.0 Degree Day accumulations (base 10) for timing of CM control products as of June 20, 2002.

Morristown	Berwick	Melvorn Square	Wolfville	Sheffield Mills	Kentville
149.9	154.1	156.0	146.9	155.2	147.2

On average, 10 degree days are accumulated daily in all locations. Therefore, we would expect to reach 211 degree days mid week of July 1st and 250 degree days by the weekend of July 4th. To date, in the 20 orchard blocks we monitored, codling moth trap captures have ranged from 1 to 32/trap with the average being 11 moths/block.

Codling moth thresholds based on moth captures in pheromone traps and related crop load				
Cumulative trap count	Percent of normal crop load			
	<20	21-50	51-80	>80
10-19	X	¼	X	X
20-39	X	¼	¼	X
40-99	¼	¼	¼	¼
100-199	½	½	½	½
200+	1	1	1	1

X=no treatment, ¼=¼ label rate, ½=½ label rate, 1= full label rate

Two-Spotted Mite

It is easy to find this mite, however, with cool temperatures there has not been a rapid build up in blocks being monitored by AAFC.

European Red Mite

Red mite is at the egg to young nymph stage of development and growers would have until mid next week to obtain optimum control with Apollo. The next window of opportunity for red mite control will not be until late July or early August when Pyramite can be used. If at all possible growers should

refrain from using Pyramite at this time of year so that it is not over-used, which will lead to the development of resistance.

Rosy Apple Aphid

No real change from the previous weeks. Keep monitoring blocks and check treated blocks to see how effective the insecticide treatment was. A second insecticide treatment may be required if adequate control was not obtained. Rosy apple aphid will be around until late July and may even carry on into early August.

Apple Maggot

Maggot traps for monitoring purposes should be placed in orchard blocks by next week. If you ordered through the NSFGA they can be picked up now. Apple maggot flies may start to emerge as early as next week. Treatment of this insect would take place 7 to 10 days after the first maggot fly is caught. A general treatment period for maggot is July 25-30th. Placement of maggot traps is important and they should be placed on the sunny side of sensitive cultivars such as Gravenstein or Idared at eye level. Remove vegetation from around the trap allowing the trap to be fully exposed and preventing leaves from sticking to the trap. If fly-in is a problem, place a trap adjacent to the problem area, such as an abandoned orchard block or a fence line with wild apple or hawthorn trees. Check the traps at least weekly starting one week after placement in the orchard, and continue checking weekly until at least mid-August. Clean the traps when needed, but at least remove all maggot flies after they are counted and recorded.

Fruit Development

In spite of cool temperatures, apples continue to size and differentials in fruit size, king fruit versus side fruit, is being observed. The size differential is important as the greater the differential the more likely the smaller fruit will drop with the July drop. It is felt there is a greater differential in blocks treated with a thinner. July drop should begin within the week and hopefully, when completed, growers will be satisfied with their thinning treatments. The period for chemical thinning has passed. If thinners failed to take enough fruit off, hand thinning is an option in late July and August.

Orchard Mowing

Regular rainfall has kept the grass growing, thus mowing will be required on a regular basis. Good vegetation control is an important component of soil moisture regulation and drought management.

NSFGA Summer Orchard Tour

The annual summer tour will be held on Tuesday, August 6, 2002 starting and stopping at Scotian Gold Co-op's new packing plant, or as some would say, "the old juice plant". The tour will take in orchards located in the central area of Kings County.

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