



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 AgraPoint.

Harvest and Next Year's Crops

I would assume that most growers are more worried about getting this year's apple crop harvested than thinking about and planning for next year's crop. The fall harvest season does however provide the producers with the opportunity to take note of yield and fruit quality problems that can be corrected prior to next years harvest. Granted weather conditions during this past growing season have contributed to some of the fruit quality problems that have occurred but orchard management also plays a major factor in the quality of fruit being placed into storage. Good managers generally have the ability to offset some of the negative weather- related problems. A common theme with this year's harvest has been the lack of fruit colour, especially at the start of the McIntosh harvest. One is quick to blame warm weather conditions for this lack of colour. Yes, September was warmer than average with the mean temperature being 2°C above the 44-year average for Kentville and 2.2°C warmer than last year. There was no frost recorded at Kentville and only twice did the daily low get to 3°C, so there was not a lot of cool weather to enhance fruit colour development. I do not feel that all the blame should be placed on warmer temperatures as not all producers ran into colour problems once McIntosh harvest progressed into the last week of September.

Other factors that may have contributed to poor fruit colour of McIntosh are as follows:

- 1) Cool wet weather during the month of May delayed bloom. Peak bloom was estimated to be on June 4th which may have occurred one day ahead of last year. However, June 1st is considered average for peak bloom of McIntosh. Over the years I have seen peak bloom of McIntosh as early as May 23rd. The number of days from full bloom to optimum harvest is reasonably consistent, although a bloom date later than usual does not

necessarily mean a similar delay in harvest. Given the late bloom date, the start of McIntosh harvesting should have been about average to slightly later than average. So fruit maturity at the start of McIntosh may have been a contributing factor. The starch iodine test is a more accurate means to determine fruit maturity than calendar date.

2) Tree vigour influences fruit colour. High foliar nitrogen contributes to excessive tree vigour, poor fruit colour, bitter pit and other storage disorders. The foliar nitrogen level for McIntosh and Cortland trees that are in a production phase should not be greater than 2.0%. Tailoring fertilizer application, pruning, crop load management and weed control will help to maintain a nitrogen foliar level between 1.9 and 2.0%. I would strongly encourage growers to review the results of their 2005 foliar analysis to make sure that nitrogen levels are not creeping up beyond this desired range. In my orchard visits during the growing season I noted lots of vegetative shoot growth in mature trees that was greater than the 20 to 25 cm recommended for good McIntosh. The excess shoot growth if not summer pruned can shade the fruit and reduce colour development.

3) Tree structure has a direct influence on fruit colour. Growers must also remember that large trees will produce poorer colour fruit than dwarf trees because of the shading factor. Another benefit of small trees is that they are easier to spot pick than large trees.

4) Stress placed on trees by disease, insects or drought can negatively affect fruit colour. I did observe some late-season foliage bronzing as a result of mites, but in general most growers obtained good mite control. The take home message is that there are factors that are out of your control when it comes to fruit colour development but there are also factors that you control which will impact colour development.

Fire Blight

Some Nova Scotia apple growers had the un-enjoyable experience of having to deal with fire blight in their orchards for the first time. Having to deal with fire blight can be quite disconcerting for a producer because of the lack of good control products and experience in dealing with this bacterial disease. Growers in warmer growing regions such as, southern Ontario, Michigan and New York State have to deal with fire blight on an annual basis and would consider the most severe fire blight infection in Nova Scotia to be moderate. In these growing regions, whole orchards can be lost to fire blight, while in Nova Scotia so far we have only lost a few trees. The one advantage that these growers have over Nova Scotia growers is that they have experience dealing with this very infectious disease on an annual basis. It is hard to gain experience when local weather conditions are only ideal for bloom infection every five years or so. If global warming is really here, then weather conditions for blossom infections will occur more often, thus growers will have to become better managers of this disease. This year's infection will greatly increase the likelihood of more infections taking place during next year. The severity of this infection will be weather dependant upon the ability of producers to remove over-wintering fire blight cankers from their orchards. Growers will need to take a three step approach to controlling fire blight.

Step 1: Removal of fire blight cankers while dormant pruning and the removal of host species, such as hawthorn, from the perimeters of the orchard.

Step 2: The application of Streptomycin during the bloom period if weather conditions are right for blossom infection. Prediction models can be used for determining the timing of applications.

Step 3: Routine orchard inspections starting in early July to monitor for shoot infection and the removal of these infections. Plans are in the works to hold workshops on fire blight and its control during the winter months and you will be informed when and where they will be held.

Winterizing Your Orchard

During the past couple of winters there have been periods with significant snow cover in orchards but fortunately this did not lead to major tree loss from mouse damage. Hopefully this can be attributed to good management practices and a population of natural predators. Failing to manage mice can lead to significant financial losses. Not only do you have to pay for new trees you will have lost three or more years of fruit production. Think of the cost of losing a Honeycrisp™ tree.

Following harvest the orchard should be mowed to reduce vegetation to less than 10 cm and this will expose rodents to predators. Keep the borders of the orchard as clean and wide as possible. Check the whole orchard for signs of rodent activity (mouse tunnels, droppings and chewed apples) as mouse populations can vary from one part of the orchard to another. If rodent activity is observed then the grower should consider the use of poison bait to reduce the mouse population. When using poison bait, growers are strongly urged to use baiting stations. Broadcasting poison baits such as zinc phosphide and Ramik Brown can end up poisoning non-target species. Bait stations will reduce the risk of this happening, as well as providing a longer period of control. The inverted T bait station is an effective station and can be made from 1½ inch ABS pipe. The recommended number of stations is 25 per hectare. Where there is not a resident population of mice within the orchard, you may wish to place bait stations on the perimeter of the orchard where there is a risk of mice moving into the orchard from bordering fields, fence lines or ditches. Bait stations are the recommended means of using poison under IFP guidelines.

Mouse damage can be quite severe in young plantings and it is advisable to place tree guards on young trees. The plastic spiral tree guards should cover the whole trunk and extend 5 cm into the soil. If the guard has not been installed properly, or the tree is too large for a spiral guard, rodents will feed on the exposed bark. The spiral guards will need to be removed in the spring to reduce the risk of canker infections.

Honeycrisp™ Orchard Renewal Program (HCORP)

AgraPoint is pleased to be able to provide technical advisory services to the HCORP over the next five years. NSFGA grower members recently received the HCORP Technical & Administrative Guidelines and a program application form. Those growers that wish to apply for the Honeycrisp™ trees that they planted this past spring (2005) must complete the application form and get it to the NSFGA office by Oct 31/05. Those that are planning to apply for assistance for 2006 plantings will need to fill out an application form by Nov 21/05.

I cannot think of too many assistance programs where the industry is in agreement over the guidelines or the objectives of the program. Unlike some past programs, which were administered by Government, this program is being administered by your own Association and the guidelines have been developed by your peers. A lot of time, effort and thought went into the development of the guidelines. If you wish to take advantage of the program, then the guidelines will need to be followed, otherwise your application will not receive approval from the HCORP Steering Committee.

If you find the guidelines do not fit your style of apple production, then there is no advantage to you in applying for assistance. Remember, there is no such thing as free money, and each grower that takes part in the program will have to make a significant labour and financial contribution to the new orchard. Honeycrisp™ is an apple cultivar that does not meet everyone's production style.

I do not think NS has to take a back seat to anyone when it comes to the production of Honeycrisp™. Nova Scotia growers should consider themselves lucky to have access to the knowledge and experience that some of their fellow growers, research staff, technical and research advisors have on the production of this apple; HCORP applicants are encouraged to tap into this

knowledge base when developing their applications. For example, as the HCORP Technical Advisor, one of my duties is to provide information regarding site preparation and planting systems.

The HOCR program will last until 2010, so I would encourage you to take the time to plan for and develop the land for a new Honeycrisp™ planting.

UPCOMING WORKSHOP

Building Food Safety and Bio-Security into Agriculture

Wednesday, November 23rd
9 AM to 5 PM
Old Orchard Inn, Wolfville, Nova Scotia

<p>FOOD SAFETY TOPICS</p> <ul style="list-style-type: none">• A Retailer's Perspective• Making the Connection Between the Farm and Consumer• European Perspective on Food Safety	<p>BIO-SECURITY TOPICS</p> <ul style="list-style-type: none">• Build a Bio-Security Plan for Your Farm• What are the Risks on Your Farm?• Bio-Terrorism• A Producer's Perspective
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Join AgraPoint specialists and other food safety/bio-security experts in a learning-friendly interactive environment. Speakers include: Jim Wyatt, *Sobeys*; Rae Ellard, *Food Safety Authority of Ireland*; and Rachel Okhama, *Curtis Chicks Ltd.*


Pre-register at 1-866-606-4636 — \$60 + HST
Registration fee includes meals and workshop manual
(pre-register and qualify for an early bird draw)

At Door Registration at 8 AM — \$80 + HST

For more information contact AgraPoint
(902) 896-0277
(902) 678-7722

Agenda and printable registration form
also available on our website below

www.agrapoint.ca



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