

Orchard Outlook



Vol. 16 No. 18

July 20, 2016

Disease		Insects
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The first tree fruit crops of the 2016 season are now being harvested. Sweet cherry harvest is moving into the mid-season varieties. Early protected peaches are also being harvested now with the bulk of the crop expected in another few weeks.

Diseases

Apple & Pear Scab

There were no infection periods recorded this past week at Kentville AAFC.

Nectria Twig Blight & Canker

Several growers this past week have observed shoots collapsing similar to shoot blight infections from fire blight. Under closer examination, most of these shoots appear to be collapsing from Nectria twig blight, caused by a fungal pathogen.

Fire blight strikes can often be confused with Nectria infections. Nectria twig blight is very often found on bourse shoots of a cluster where a fruit was picked last fall with the stem left on the tree or at the point of attachment from the stems of last year's fruitlets to the spur (Figure 1). This short video examines the symptoms a little closer: <https://youtu.be/kjqXw08dXKM>



Figure 1: Nectria twig blight can resemble fire blight strikes.

Symptoms of Nectria twig blight include wilted shoots and sometimes shepard's crooking, similar to fire blight (Figure 3). However, Nectria shoot blight usually begins from the base upwards, and **there is never any bacterial ooze present.**

In comparison, shoot blight from new fire blight infections usually begins from the tip down, nearly always bacterial ooze is present, and usually the midvein or petiole of the leaf appears symptomatic before the leaf blade.

Nectria infections should still be pruned and discarded where found but it is not nearly as aggressive as fire blight. There are no proven fungicide programs for eliminating Nectria twig blight. Sanitation of the orchard and removing cankers during pruning are the best methods of prevention. Limiting the amount of stems left on the tree during harvest will also likely reduce the number of colonization sites for Nectria fungus.

Fire Blight

Fire blight spread has slowed dramatically over the past couple of weeks. In mature orchards, many terminals are now stopping new growth for the season. At this point, the risk of new infections to these shoots decreases substantially. As discussed above, most of what has been reported as fire blight in the past week is probably actually caused by Nectria twig blight.

Powdery Mildew

Continue to watch for powdery mildew in nurseries and young plantings which can interfere with terminal development and tree growth. See the Orchard Management Schedule for registered products for mildew control. There appears to be more powdery mildew pressure than in the past couple of seasons due to the extended period of hot dry weather in June.

Brown Rot

Stone fruits become susceptible to brown rot infections again within the final three weeks before harvest. Regular preharvest fungicide applications are critical, especially during periods of wet weather. Once brown rot has appeared on picked fruit it is too late to do anything about control. If

you are treating more than one type of stone fruit make sure that the product is registered for all the crops that you are spraying. Also check the pre-harvest interval. Check the Stone Fruit Management Schedule for products and rates. Rotate fungicide classes for resistance management.

Insects

Apple Maggot

Apple maggot treatments are now starting to be applied in the Valley. The economic threshold is 1 maggot fly per orchard on a yellow sticky board. Apply a treatment 7-10 days after the first fly is captured on a yellow sticky board. Highly effective products for AM are limited to Imidan (2.68 kg/ha), Assail (160-240 g/ha), Calypso (440 mL/ha), and Exirel (1.0-1.5 L/ha).

Growers that are using Altacor, Delegate, or TwinGuard for CM or OBLR control will also have some suppressive activity on AM, but these products should not be relied upon for control in most situations. Conversely, all registered AM control products will impact both CM and OBLR as well.

In organic orchards, Surround can be used to deter egg laying and GF 120 fruit fly bait can be used for suppression of adult flies. Both Surround and GF 120 should begin to be applied as soon as flies are present in the orchard.

Yellow sticky traps should be cleaned out after application to determine the additional emergence of adult flies. Additional captures when the residual life of the insecticide is complete (14 days depending on rainfall with Imidan) will indicate a second spray is required. With the neonicotinoids (Assail or Calypso) or diamides (Exirel), insecticide residue should be maintained through the end of August and retreatment would be based on rainfall or 10-14 days residual activity. The following article from Michigan State University includes a good reference table of apple maggot insecticides and activity.

http://msue.anr.msu.edu/news/managing_apple_maggots_using_insecticides

Aphids

Check the terminal growth for the presence of Green Apple Aphid colonies. An aphid control treatment is recommended if 10% of terminals are infested.

Mites

Summer miticide options include Acramite, Kanemite, Nexter, Envidor, and Nealta. Scout your orchards or check your scouting reports to see if there is a treatable population. Mites have many generations per year and therefore have a high potential to develop resistance. For resistance management, it is critical to rotate miticide classes. The use of dormant oil applications will also help to delay resistance selection for European Red Mite. Those growers that make use of a scouting service will need to apply miticides when population thresholds are reached. In mid-July, the presence of European red mite or twospotted spider mite on 44 of 50 leaves examined will act as threshold for treatment.

Horticulture

Apple Thinning

Fruitlet drop from thinners is finishing in most areas. This is a good time to make a few notes on thinner performance. Hand thinning can begin in blocks where chemical thinning did not adequately reduce crop load. Start with the highest value varieties such as Ambrosia, Honeycrisp, Gala, and Club varieties.

Events and Notices

NSFGA Annual Orchard Tour

The NSFGA Annual Orchard Tour will take place on **Thursday, August 4th** beginning at 8:30 am at the Kentville Agriculture Centre. Tour agenda is below.

Golden Apple Award 2016 – Best Management of a First Year Planting

Today's new orchards represent the future success of the tree fruit industry in the province. To recognize the importance of successful first-year establishment on future orchard performance, the NSFGA Production Committee has chosen Best Management of a First Year Planting as the Golden Apple Award category in 2016. This award will recognize the efforts of an individual to ensure successful tree establishment and uniform growth of a first year planting. The NSFGA Production Committee would like to request nominations for a recipient of the 2016 Golden Apple Award for this category. Nominations can be forwarded to Candy O'Connor, NSFGA (902-678-1093 or coconnor@nsapples.com). Nominations will be judged by the NSFGA Production Committee.

Entries have to meet the following requirements to be eligible for the Golden Apple Award:

- Be nominated by a peer grower or industry representative
- The orchard is a minimum of 1 acre in area and was planted in 2016

Nominations are to be judged by the NSFGA production committee based on the following criteria:

- Tree survival rate
- Uniformity of tree growth
- Level of weed control
- Adequate insect & disease control
- Crop load management
- Orchard floor management
- Overall general appearance

OrchardMAX Airblast Sprayer Optimization App Available for Free Download!

This handy mobile app will help you optimize airblast applications for apple orchards. It is available for both iOS and Android operating systems. See the link below for more information.

<http://sprayers101.com/orchardmax/>

Reminder: Canada-Nova Scotia Fire Blight Initiative! DEADLINE APPROACHING

This is a reminder that all tree fruit growers with apple and/or pear acreage that required additional management as a result of fire blight occurring after tropical storm Arthur can apply for financial assistance under the Canada Nova Scotia Fire Blight Initiative – a Growing Forward 2 Agri-Recovery program.

DEADLINE TO APPLY FOR THIS PROGRAM IS JULY 29!

Funding includes provisions for recovery of additional chemical costs for all growers. Funding is also available for confirmed tree losses where an industry inspection report was completed prior to July 31, 2015.

For more information on the Canada-Nova Scotia Fire Blight Initiative and how to apply, see <http://novascotia.ca/programs/fire-blight-initiative/>. Questions regarding the program or eligibility should be directed to the Programs and Business Risk Management Branch of the Nova Scotia Department of Agriculture at 1-866-844-4276.

Apple Maggot Eradication Technician

The NSFGA has again obtained funding for a summer technician to aid in apple maggot control efforts.

Please contact Elizabeth Nichols to report wild trees to schedule their elimination.

Please also contact Elizabeth Nichols if you have completely removed blocks so records can be updated for apple maggot inspections.

Elizabeth Nichols

Apple Maggot Eradication Technician

Blair House, Kentville Agricultural Centre

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Email: enichols@nsapples.com

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This Orchard Outlook has been published with the input of the Orchard Outlook Committee and Erika Bent (APM).

NSFGA Annual Orchard Tour – Thursday, August 4th, 2016

8:30 am	Kentville AAFC 32 Main Street, Kentville Picnic Grounds	Coffee and Snacks
8:45 am		Introductions & Greetings
9:00 am	Board Buses	
9:00 am to 10:45 am	Research Plots 32 Main Street, Kentville	<ul style="list-style-type: none"> • NC-140 Modi & Honeycrisp Rootstock Trials Dr. Suzanne Blatt, AAFC • Apple Biodiversity Collection Dr. Sean Myles, Dalhousie University • Apple Breeding Update Dr. Karen Burgher-MacLellan, AAFC • Soil Preparation Lessons Dr. Keith Fuller, AAFC
10:45 am	Board Buses	
11:00 am to 12:00 pm	Noggins Corner Farm 10009 Hwy 1, Greenwich http://www.nogginsfarm.ca/	<ul style="list-style-type: none"> • Tender Fruit Crops in Nova Scotia <ul style="list-style-type: none"> ○ Apricots ○ Nectarines ○ Peach Cultivars ○ Cold Snap™ Pear
12:00 pm	Board Buses	
12:10 pm to 2:00 pm	Noggins Corner Farm 10009 Hwy 1, Greenwich http://www.nogginsfarm.ca/	Lunch
2:00 pm	Board Buses	
2:30 pm to 3:30 pm	Van Meekeren Farms 237 Thorpe Road, Lakeville http://givethemawink.com/	<ul style="list-style-type: none"> • Newly Planted Trees <ul style="list-style-type: none"> ○ Gala vs Pazazz • Precision Fruitset Model Evaluation
3:30 pm	Board Buses	
4:00 pm	Return to Kentville AAFC 32 Main Street, Kentville	Tour Concludes

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