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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.
Orchard Management Schedules

Orchard Outlook Meetings

The first *Orchard Outlook* meeting of the 2006 growing season was held at 8:00 AM, Wednesday, April 26th. Orchard Outlook meetings will be held weekly at the Kentville Agricultural Centre until mid-July. This morning's meeting was well attended and it is always good to see familiar faces. These meetings allow for discussion of current orchard issues by AAFC Research Staff, retired AAFC staff, and industry representatives.

Fruit Bud Development

Apple buds are at the green tip to half-inch green stage of development depending on the cultivar and location within the Valley. Pears are at the bud burst stage and stone fruit are at the bud burst to green cluster stage. Bud development has been gradual during the past week in light of the cool temperatures. Just keep in mind that warm day and especially night-time temperatures will move bud development along quite rapidly.

Risk of Frost Injury

Resulting from the early fruit bud development on fruit trees there is an increased risk of frost injury to the flower buds. This past week frosts were recorded on the mornings of April 21st, 22nd and 23rd. Kentville recorded lows of -1.0, -2.3 and -1.8°C while Greenwood had lows of -1.1, -1.0 and -2.9°C. I received a weather station report from the Aylesford area that recorded a low of -4.1°C on the 23rd. These temperatures should not have caused major problems given the stage of bud development and their ability to withstand freezing temperatures. Cultivar and tree health will also have an influence on the critical temperature for frost damage. The table on the next page outlines critical temperatures for Red Delicious. McIntosh buds are a bit hardier.

Critical Temperatures for Red Delicious Apple Buds

Kill	Green Tip	Half-inch Green	Tight Cluster	First Pink	Full Pink	First Bloom	Full Bloom
10% Kill	-7.7°C	-5.5°C	-2.7°C	-2.2°C	-2.2°C	-2.2°C	-2.2°C
90% Kill	-12.2°C	-9.4°C	-6.1°C	-4.4°C	-3.8°C	-3.8°C	-3.8°C

Apple Scab

Data loggers for apple scab prediction are now up and running and Dr. Gordon Braun reported that one infection period was recorded at Kentville during the past week. This was a result of a wetting period that began at approximately 7:00 PM on Monday evening April 24th, and lasted until noon on Tuesday the 25th. The average temperature during the wetting period was 9°C which would have resulted in an infection being established around 10:00 AM on the 25th. Given the stage of bud development and that there are mature ascospores growers should now be applying scab sprays on a regular basis.

Powdery Mildew

Powdery mildew was not a serious problem for most apple growers last year and this may be a result of the cool wet weather during May and the use of SI and Strobilurin class of fungicides to control apple scab during this period. The mild temperatures during this past winter would have had no impact on reducing the overwintering spore load. If mildew was a problem last year, or early season infections are detected on buds or new shoots, the optimal time to treat for this fungal disease would be in the pink to calyx stage. Use a fungicide that is effective in controlling both powdery mildew and apple scab.

Fire Blight

Growers who were removing overwintering fire blight cankers should have completed this task now. The next step in control will be to monitor temperatures and determine the degree of risk for blossom infections. We have started to run the Maryblyt™ model for determining the risk of infections and this model will indicate when overwintering cankers are active and producing bacterial ooze, the risk of blossom infection and when shoot infection should be visible. I am willing to e-mail or fax a message to producers when there is a high risk of a blossom infection so that streptomycin spray can be timed appropriately.

Insect Development

Given the stage of bud development and time of year there is not much to report on insect activity. Oil sprays for pear psylla should have been applied earlier this month. Oil sprays for red mite should be applied as close to hatch as possible around the tight cluster stage of apple bud development. Weather often dictates when oil can be applied as it should be applied under good spray conditions and not 48 hrs prior to or after a frost. Oil will increase the damage to frosted tissue. Given the cost of gas these days it should come as no surprise that the cost of spray oil has gone up. Oil may not be your best option if the egg counts are very high or there is a high population of two-spotted already in the trees. Growers should base oil sprays on an orchard assessment of overwintering egg density. You may wish to have this done by a monitoring service or you can do it yourself using the following guidelines.

Sampling for winter eggs involves collecting 30 fruit spurs (3 cm of wood and spur) from 10 trees. Count the number of eggs on each spur based on the following:

Score	Number of Eggs
0	0
1	1-10
2	11-15
3	51-100
4	>100

You do not need to count every egg but do a close examination and make an estimate. Once all the spurs have been scored individually on the basis of ERM egg abundance, the average score is calculated by dividing the total of the score by the number of fruit spurs. The need to treat is based on the following scores.

Threshold (avg Score)	Recommendation	Timing
0	No treatment	-----
1	Superior oil 70 sec	Green tip-tight cluster
2.0	Miticde	Consult spray guide

Weed Control

With the greening up of the countryside it is not too early to start herbicide programs for grass control and weed control in your orchards.

New Orchard Plantings

A number of growers have already been able to set out new trees. Soil conditions at the start of April were very suitable for planting. The past couple of weeks have been wetter and less ideal for setting out new orchard. Just keep in mind that new trees should not be planted when the soil is water logged. It is better to plant trees a week later than mucking them into wet soil.

Honeycrisp™ Planting

Growers who are planting Honeycrisp™ under the assistance program this spring should contact Bill Craig (678-7722) once the trees have been planted and the support system installed so that inspections can take place.

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