Fire blight

We use two weather-based models to estimate risk of blossom infection by fire blight bacteria. The MaryBlyt model gives a single rating, and does not even get close to showing any fire blight infection periods within the next week for Sanford, Monmouth, Turner, Madison, or Levant.

The Cougarblight model gives three different ratings:
* Category I, Lower risk: without active fire blight within 1 mile last year or so far this year;
* Category II, Intermediate: orchards that had fire blight within 1 mile last year, but not so far this year;
* Category III - Higher risk orchards: Those with currently active fire blight within 1 mile.

As of Saturday morning, the Cougarblight model shows High risk for Category III orchards in the Sanford area on Sunday, Monday, and Tuesday, May 13–15. The ratings for those days are just below the threshold for a High Risk rating for Category II orchards, but are far below the threshold for Category I orchards.

Cougarblight does not indicate significant risk on May 13–15 for even Category I orchards in Monmouth, Turner, Madison, or Levant.

For Sanford, the rating for Sunday May 13 requires some explanation. For Cougarblight, Orchard Radar tracks daily minimum and maximum temperature and rain from 8am to 8am, instead of midnight to midnight. (There are good reasons for doing this, but I won’t bother getting into the details right now.) The calendar day (midnight to midnight) forecast has no rain on Sunday May 13. The forecast rain does not start until 7am on Monday, May 14. However, because of the accounting method used, the start of that rain is assigned to Sunday, May 13 for the Cougarblight model.

For orchards with history of fire blight south of Monmouth and Turner, growers should consider need for application of streptomycin to trees that will still have open blossoms on Monday and Tuesday, May 14 and 15.

Fire blight is tough to predict because the severity rating can change significantly with the each weather forecast update. For historical perspective, we have had much more severe fire blight conditions than this that resulted in spotty fire blight infections where growers did not apply protective streptomycin spray. And McIntosh and Cortland trees in southern Maine will have reached Petal Fall by the potential start of a Monday morning fire blight infection period.

But later blooming cultivars, which include those most susceptible to fire blight like Honeycrisp, Gala, Golden Delicious, Jonagold, and Fuji strains, could still have open bloom by Monday. The degree of appropriate concern about fire blight potential for southern Maine orchards depends on a) fire blight history of the block and nearby orchards as an indicator of disease pressure, and b) how many flowers will still be on the trees by Monday, May 14.
Apple Scab

There is high chance of rain in the forecast for every day from Monday May 14 through Monday May 21. So the coming week could be one long scab infection period.

For Sanford area orchards this will be the season’s last important primary scab infection period, and about 10% of the season’s total primary scab infection potential.

For Monmouth and Turner, a May 14-21 infection period would account for about 39-43% of the season’s primary scab infection potential, and would be the final major infection period, but with some remaining potential for one more significant infection period afterward.

For Madison and Levant, a May 14-21 infection period would account for about 50% of the season’s primary scab infection potential, with about 20% of the season’s primary scab infection potential still left to occur afterwards.

This kind of forecast usually results in dry periods between showers when it is possible to renew fungicide coverage.

A question that has come up repeatedly in discussion with growers over the past week is whether a post-infection fungicide application is needed when there is more than 2 inches of rain during an infection period that removes protective fungicide coverage before the end of the infection period. I asked a couple of scab experts about this. The consensus is that there is not much additional spore maturation and release during a day or two of cool temperatures at the tail end of a 2″ rainy period. In research trials conducted long ago in New Hampshire, captan at 7 day intervals prevented scab in a high inoculum orchard regardless of how much rain occurred during the 7 day interval. So I’ve been saying that in an orchard that had good scab control last year, and is thus presumably has low scab pressure this year, there is no need for post infection control in this scenario.

But for an orchard that did not have good scab control last year, the risk can be orders of magnitude higher, especially if the infection period in question was during the middle of peak ascospore maturation from Pink to Petal Fall. In that case, even though the UNH trial data may suggest otherwise, it may be too risky to allow for any unprotected hours during a major scab infection period. Thus, if the protectant fungicide is presumed to have been removed by 2+ inches rain during an infection period, it would be prudent to consider the need for post-infection control. Note that even captan and mancozeb provide, while not normally thought of as post-infection fungicides, do provide 18-24 hours of postinfection activity. If the application can be made in a timely manner, renewed coverage with a protectant fungicide can provide the desired post-infection activity. Syllit is listed in the New England Tree Fruit Production Guide as having the same range of post-infection activity as captan and mancozeb, but may have better reach back to about 36 hours.

Scab Management Survey

We are conducting on scab management practices as part of a Northeast Sustainable Agriculture Research and Education grant to study ways to improve scab control and to demonstrate feasibility of eliminating early season fungicide sprays in low-risk orchards.

Thank you to those of you who filled it out online or on paper and returned it by mail. If you have not taken the survey, there is still time since we will continue to collect responses until early June. The survey is online at [http://www.surveymonkey.com/s/CTSQGTY](http://www.surveymonkey.com/s/CTSQGTY)

The results of this survey will be available this summer.
Apple Thinning Outlook

Fruit set is likely to be light to moderate around the state this year. A number of factors have conspired to reduce this year’s potential yield of apples. It began with a heavy crop last year leading to fewer blossoms forming, or the well-known phenomenon called biennial bearing. A record-breaking warm spell in March caused flower buds to begin growing a month earlier than is usual. In late March, freezing temperatures killed flower buds in at-risk orchards when buds were at the green tip to half-inch green stage. Another freeze killed additional flower buds in late April when most were at the pink stage. At Highmoor Farm, elevation appeared to be a key factor in the number of buds that survived these freezes, and only the lowest spots have lost enough flowers to have an impact on yield. Now that trees are in bloom, poor pollination conditions have predominated, but better conditions are expected for Saturday and Sunday, May 12–13 for trees still in bloom.

Orchards with 10% or fewer of the flower buds remaining alive are not likely to need thinning, but an application of thinner will improve return bloom in case you underestimate the number of fruit on your trees. This year, it is best to wait until fruit reach a diameter of 7–10 mm (⅜ inch) to decide how much to thin. The next newsletter will have suggestions for rates of thinners according to variety.

Insect and Mite Pests

Prebloom tarnished plant bug and leafminer activity were very low at Highmoor Farm. The rainy cool weather during bloom should, in general, result in reduced European Apple Sawfly (EAS) activity, but I won’t know until I check traps at Highmoor on Tuesday, May 14.

With Bloom and Petal Fall straggled out to a greater degree between cultivars this year, it will be more difficult to make a prompt Petal Fall insecticide application in mixed cultivar blocks. That won’t matter if EAS pressure is low. Plum curculio move into the orchard starting at Pink and during Bloom, but won’t start cutting apples until fruit set.

The week after Petal Fall is an important window to check for European red mites, tentiform leafminer mines, and white apple leafhopper. They all appear at this time and are more susceptible to control until about two weeks after Petal Fall. Threshold information is online at http://pronewengland.org/INFO/PROpubs/AppleScoutCard-2007web.pdf
Maine State Pomological Society Summer Meeting

Thursday, July 19, 2012
PieTree Orchard, Sweden Maine.
Host: Scott Miller, Orchard Manager
8:30 - 9:00  Registration ($15 per person, includes lunch), Meet and Greet, Coffee.

9:00 - 9:45  “Recent Experience and New Developments for Better Scab Control with Reduced Fungicide Use Through Practical Scab Sanitation”, Dr. William Bill MacHardy, Emeritus Professor of Plant Pathology, University of New Hampshire, and Dr. Daniel Cooley, Professor of Plant Pathology, University of Massachusetts.

9:45 - 10:15  "Apple Disease Control Challenges for the Next Decade", Dr. David Rosenberger, Professor of Plant Pathology and Director Cornell University Hudson Valley Lab.

10:15 - 10:30  Break

10:30 - 11:15  "Learning to Love Climate Change While Growing Tree Fruit”, Dr. Dan Cooley

11:15 - 11:45  “Societal Changes Are Creating Opportunities and Challenges for Fruit Growers", Dr. David Rosenberger.

11:45 - 12:00  “Reducing Risk for Farm Business Management”, Tori Jackson, UMaine Cooperative Extension.

12:00 - 12:45  Lunch

12:45 - 1:00  Dessert and MSPS Business Meeting

1:15 - 3:00  Orchard Tour and Scab Assessment Demo

IFTA Tour in Quebec

The 2012 International Fruit Tree Association Study Tour is in the Montreal area on July 25-27. This is a great educational opportunity to visit research orchards; an artisanal and innovative ciderie with roots back to Brittany; and of course, orchards that grow new and heritage varieties of apples, including the rare Cox’s Orange Pippin. You will also see the latest in equipment design, packing and storage facilities, and an unique airlock-equipped CA storage.

Visit the IFTA website, www.ifruittree.org for updates and registration information. The registration deadline is June 25. Note: All non-Canadian citizens must have a valid passport to enter the country. The email contact is info@ifruittree.org

An IFTA membership costs $100. The meeting registration fee is $400. Non-member registration fee is US $525 and includes a 2012 IFTA membership. The meeting fee pays for

* Thursday, July 26 – lunch and dinner
* Friday, July 27 – breakfast, lunch, and dinner
* All coach transportation between the Alt Hotel and all orchard and meal stops
Hotel reservation is NOT covered by the registration fee. Rooms are available for an IFTA rate of CA$135 at:
Alt Hotel - Quartier DIX30
6500 boulevard de Rome
Brossard, QC
(877) 343-1030 or (450) 443-1030
https://reservation.dix30.althotels.ca/en/

**ITINERARY**  **Wednesday evening, July 25**

For tour attendees arriving in the late afternoon or early evening, there will be a “Welcome to Quebec” gathering at 6:30 pm, within walking distance of the Alt Hotel, featuring a short presentation on where the Quebec apple industry stands now and plans for the future.

**Thursday, July 26**

- IRDA Research Orchard is located in a national park with focus on demonstrating Integrated Fruit Production methods, disease and insect pest research.
- Petch Orchards is a third generation, 115-acre orchard produces apples, pears and plums in the idyllic Hemingford region, and features varied new plantings to supply a diverse clientele.
- Verger du Minotis is operated by Britain-born ciderie founder, Robert Demoy, who initiated the rebirth of cider-making in Quebec.
- Leahy Orchards produces more than 90% of the private label apple products in Canada.
- Stevenson Orchards was one of the first Canadian orchards with Honeycrisp plantings.
- Verger Gérald Lussier boasts a hundred-odd acres with 20,000 apple trees bearing 12 varieties of apples, with some of the most productive acreage around. This stop will focus on getting young plantings off to a good start.

The first day of the tour will end with a special supper, featuring spit-roasted pork at the historic Havelock Fairgrounds.

**Friday, July 27**

- Verger Denis Charbonneau - Our first stop of the day will include breakfast and a visit to this award-winning orchard that is a member of Pro-Pomme, a technical support group that promotes the cultivation of high-quality apples using environmentally-friendly methods.
- Thomson Orchards Inc., where the host is former Federation of Quebec Apple Growers president, Dean Thompson, who will discuss why he considers that, for some varieties, medium-density plantings give a better bottom line.
- Les Artisans du Terroir Inc. is a family winery and orchard where you will see well-tended, high-yielding, young high-density plantings.
- Verger Bel Horizon will feature a delightful picnic lunch, orchard tour, and discussion of sharing offshore labor lodging facilities with other growers.
- Verger Jodoin of St-Jean-Baptiste has a rich apple-growing tradition going back four generations, and will feature new plantings in one of their seven orchards. This site also has the Quebec cultivar trials.
La Fruiteraie des Gadbois combines apple and highbush blueberries. The orchard features the most extensive planting on Ottawa rootstock (O.3 and O.8) in the province. Other highlights of this stop include a unique three-row sprayer that covers 9 acres per hour, hydrocooling facilities, European-style bin handling, and a unique airlock-equipped CA storage.

Cournoyer Orchard will feature explanation of how they use mechanical flower thinning and we will be able to see the results in the orchard. We'll also learn about their fruiting wall blocks, as well as interesting machinery.

The Friday evening dinner will be a traditional "repas de cabane à sucre" (sugar shack meal) that is guaranteed to "stick to your ribs”. accompanied by plenty of Québec joie-de-vivre!

Closing Words

"The giving of love is an education in itself."
~ Eleanor Roosevelt

“We are not retreating - we are advancing in another direction.”
Douglas MacArthur

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If you are a person with a disability and will need an accommodations to participate in this program, please call Highmoor Farm at 933-2100 to discuss your needs. Receiving requests for accommodations at least 7 days before the program provides a reasonable amount of time to meet the request, however all requests will be accepted.