Last week, scab lesions ‘exploded’ on non-managed McIntosh trees at the UVM Hort. Farm. “Sheet” scab was easily seen -- where instead of individual lesions, most of the surface of the leaf is covered with the fungus. At the end of last week, Terry Bradshaw scouted the organic orchards to see what the scab status was. Luckily, although we can find a lesion here and there in Orchards 1 and 2, it is not a situation that cannot be managed -- it just means we will have to keep a tighter schedule with fungicides than we would like to otherwise.

Fire Blight -- The strong storm (high winds, rain) that occurred on May 29 did damage some shoots throughout the organic orchards and we assumed that it was a “trauma” event for fire blight. Using the fire blight model on NEWA to calculate degree-days, which is used to predict when first symptoms should appear (i.e., symptoms should begin to appear 90-100 degree day base 55°F after the event), the model predicted we should begin to look for symptoms on June 10. Well, we did a thorough assessment of Orchard 4 (the orchard planted last year with 8 scab-resistant cultivars) for fire blight infections on Friday -- and saw some suspicious blossoms and shoots -- which we noted and, when possible, cut out of the trees. This morning the following picture was taken -- this is a shoot on a Liberty tree that has all the symptoms of fire blight (shepherd’s crook, water-soaked tissue, etc.) Towards the end of this week, we will look very closely at all the Liberty tree again to see if any other trees have fire blight symptoms. The Liberty trees were newly planted this year to replace the Rome trees that had been mistakenly sent to us by the nursery -- the Liberty trees may have been particularly vulnerable to blossom and shoot infection given their stage of development when conditions were favorable for infection.
The end of last week we started hand-thinning Orchard 1 and Orchard 2. Orchard 1 did not take much time -- trees are small. Orchard 2 is another story -- it will take a significant amount of time this week to complete the task. But, it serves a horticultural purpose and an IPM purpose -- fruit with insect damage are preferentially removed from the tree and the orchard and, thus, lowering the resident population of certain insect pests.

Connor Eaton, an undergraduate student intern, hand-thinning Orchard 2. Thinned fruit are dropped into picking bucket and removed from the orchard.

The pictures below of European apple sawfly damage were taken this morning in Orchard 3 (a non-managed orchard). But, if this fruit was on a tree that was being hand-thinned, it would have been picked and the insect removed from the orchard before it was able to drop to the ground and pupate in the soil.
In my “walk-about” in the orchards this morning (and also last week), I saw only a few shoots that have populations of green apple aphids starting to develop -- but, I am happy to report that eggs of the syrphid fly and cecidomyiid midge were already present -- the larvae of both of these insects are natural predators and can manage aphid populations.

Two syrphid fly eggs (oval, whitish above pencil tip) with aphids

Under the dead aphid body in the center of the picture is a small orange cecidomyiid egg.

This week we will be getting out the Apple Maggot Fly traps and setting them in the orchards. With the warm weather and the ample rainfall we have had this growing season, apple maggot flies may appear “earlier” than when we would normally expect them in terms of calendar date. According to NEWA, predicted first emergence of apple maggot occurs after approximately 1169 to 2057 degree days have accumulated from January 1 (base 43F). At the organic orchards, degree day accumulation as of yesterday was 1061 -- so it is time to get out the traps.

Example of Apple Maggot Fly on trap
We are headed West -- Next week, we will be attending the Second International Organic Fruit Research Symposium which is being held in Washington State. Over the last few weeks, we have been busy preparing research presentations and posters for the symposium -- the OrganicA Project will have a total of 7 posters/presentations.

eOrganic will be broadcasting webinars live from the Symposium. Below is information on the webinars and how to register.

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Each webinar will contain multiple presentations and speakers.

The schedule is listed below, and advance registration is required for each webinar you wish to attend at http://www.extension.org/pages/64359.

Register for 2nd Organic Fruit Symposium Webinar Broadcasts >>

Tuesday, June 19, 2012
Webinar 1
Plenary 1: The Organic Fruit System
8:00am Pacific Standard Time - 12:15pm PST (-700 GMT)
- Welcome. Bob Prange, ISHS Representative
- The US Market for Organic Fruits. Don Harris, USA
- Organic Fruit Growing and Markets in Europe in the early 2010s: Solutions, Challenges, and Perspectives. Franco Weibel, Switzerland
- Fungal Disease Management in Organic Fruit Orchards: Epidemiology, Forecasting and Disease Control Strategies. Imre Holb, Hungary

Webinar 2
Session 1A: Insects. 1:15pm Pacific Standard Time - 3:00pm PST (-700 GMT)
Session 2A: Plant Pathology. 3:15pm - 5:00pm PST (-700 GMT)

Insects
- Monitoring and Modeling Natural Enemies to Enhance Biological Control in Western US Tree Crops. V. Jones, USA
- Habitat Modifications and Species-Specific Pest Control Products Can Reduce Pest Control Costs. Unruh, USA
- Three for One: An Organic Adjuvant that May Improve Management of Fruit Flies, Diseases, and Birds in Cherry and Small Fruits. Knight, USA
- Effect of a Commercial Extract of the Brown Seaweed Ascophyllum nodosum on Mites in Tree Fruit. Little, Canada
- Green Peach Aphid (Myzus Persicae (Sulzer)) Control In Organic Plum Orchards. Cichon, Argentina
- Organic Management of Fruit Fly in Jujube Ecosystem. Mari, Pakistan

Plant Pathology
- Systems Approach to Fire Blight Control in Organic Pear and Apple without Antibiotics. K. Johnson, USA
Introducing Blossom Protect: An Effective Alternative to Antibiotics for the Control of Fire Blight. Parker, USA
-Effect of Spray Application Parameters on Viability of Bacterium Pseudomonas fluorescens Used as Bio-pesticide in Organic Fruit Production. Doruchowski, Poland
-Progress in Brassicaceae Seed Meal Formulation and Application for Replant Disease Control in Organic Apple Orchards. Mazzola, USA
-Management Of Phytophthora Cinnamomi Root Rot Disease Of Blueberry With Gypsum And Compost. Yeo, USA
-Control of Bacterial Wilt in Organically Grown Muskmelon. Caudle, USA
-Effect of Bordeaux Mixture Spray on Fruit Quality of Grape cv. ‘Kyoho’ and Copper Accumulation in the Soil. Jung, Korea

**Thursday, June 21, 2012**

**Webinar 3**

**Plenary 2: Soil Management, 8:00 - 8:50am Pacific Standard Time (-700 GMT)**

**Concurrent Session 3A: Soils and Crop Nutrition, 8:00am PST - 10:30am PST (-700 GMT)**
**Concurrent Session 4B: Research Funding Panel, 10:45am PST - 12:00pm PST (-700 GMT)**

-Observations on the Biology of Organic Orchard Soils. Bird, USA
-Soil Management in Organic Orchard Production Systems. Neilsen, Canada
-The Effects of Four Ground Cover Management Systems and Three Nutrient Sources on the Development and Performance of an Organic Apple Orchard in the Southern US. Rom, USA

**Soils and Crop Nutrition**

-Effect of Four Different Soil Management Techniques on Apple Root Development. Neri, Italy
-Effect of Organic Fertilization on Soil Fertility, Tree Nutritional Status and Nutritional Removal of Mature Nectarine Trees. Toselli, Italy
-Fertility Management of Establishing Organic Blackcurrants (Ribes nigrum L.). Hammermeister, Canada
-Using Compost as Mulch for Highbush Blueberry. Forge, Canada
-Effect of Some Organic Fertilizers on the Growth and Yield of Pomegranate (Punica granatum) in Iran. Mirjalili, Iran
-Effect On The Soil Physical Property And Fruit Quality Followed By Subsoil Breaking In Organically Converting Kiwifruit (Actinidia Chinensis ‘Haegeum’) Orchard. Cho, Korea

**Research Funding**

-Europe. Weibel, Switzerland
-Organic Farming Research Foundation. Birmingham, USA
-Washington Tree Fruit Research Commission. McFerson, USA
-Organic Industry. Benbrook, USA
-Discussion

**Webinar 4**

**Plenary 3: Organic Fruit: Impacts and Progress 1:30pm Pacific Standard Time - 3:00pm PST (-700 GMT)**

-Impacts of Organic Production Systems on Fruit Nutritional Quality and Safety. Benbrook, USA
- Nutritional and Organoleptic Characterization of Apple Produced by Organic and Integrated Production Systems in Lleida (Spain). Huanc, Spain
- Linking Soil Health to the Nutritional Quality of Fruit. Andrews, USA
- Biological Control of Postharvest Diseases: Hurdles, Successes and Prospects. Janisiewicz, USA
- How to Increase the Conversion Rate to Organic Fruit Production. Klopp and Quast, Germany
- Discussion

IMPORTANT: It is the grower’s responsibility to ensure that any crop production practice or material used in the orchard is acceptable in their particular state’s organic certification program. Some materials deemed organically acceptable on the National List may not be acceptable in some states. Contact your federally accredited certifying agency to know what is acceptable and to ensure compliance with regulations in your state.

Where trade names or commercial products are used for identification, no discrimination is intended and no endorsement is implied. Always read the label before using any pesticide. The label is the legal document for the product use. Disregard any information in this document if it is in conflict with the label.

We Value Your Input and Want to Address Your Needs
Please send your comments and suggestions to lorraine.berkett@uvm.edu

For more information on the OrganicA Project please see: http://www.uvm.edu/organica/

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