



## ***Vermont Apple IPM News***

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### ***Disease Management***

**Apple Scab** - So far, we are not seeing very much scab in the non-sprayed trees at the UVM Hort. Res. Center compared to what we saw last year. At the UVM, we had six primary infection periods which was the same number we had last year, but in 2007, they were not as extensive in duration. At this point, all the primary infections should be visible in your orchards. Hopefully, your orchard is “clean”. As a reminder, scab is considered significant if 0.5% or more of the leaves or fruitlets have scab lesions at this point in the growing season. If you have seen some lesions, two full-rate captan applications 5-7 days apart can reduce conidial inoculum, especially if temperatures exceed 80F in the days following application.

**Fire Blight** - Hopefully, we all “dodged the bullet” with fire blight this year. Some ‘strikes’ still may become visible in the next week or so from late bloom infections but, I have not heard of any major problems in the state yet. If you are seeing strikes (hopefully, not), I would be interested in knowing about them.

**Flyspeck** - We have been monitoring the hours leaves have remained wet from Petal Fall (May 26th) at the UVM HRC in order to have an indication of when fly speck inoculum will be available. At 270 hours of leaf wetting after Petal Fall, flyspeck conidia presumably will become available in the orchard perimeter from wild hosts and will begin blowing into the orchard. As of June 17th, we had accumulated 145 hours of leaf wetness.

If you plan to use captan for apple scab management, it will have some activity against flyspeck. Topsin M and strobilurin fungicides (e.g., Sovran, Flint) provide post-infection activity against flyspeck infections if applied before an additional 100 hours of wetting occurs (i.e., before 370 wet hours from petal fall).

Note: Removing wild hosts (e.g., wild brambles) from around the perimeter of the orchard will aid in disease management as will summer pruning which increases air circulation.

## ***Quick Update of Degree Day Accumulation for Arthropods:***

**Codling Moth** - As of June 17th, we had reached the following DD accumulation (base 50F):

- ◆ UVM Hort. Res. Center = 436 DD from May 14 (biofix)
- ◆ Shoreham = 385 DD from May 24 (biofix)

In orchards where one insecticide application is sufficient for management, optimal timing is at 360 DD after the biofix. At the UVM HRC, it is estimated that 360 DD had been reached on June 12th. In blocks where CM are a problem, a second insecticide spray applied at 10-14 days after the first should help in CM management. Thus, a spray at the end of this week or the beginning of next still is an option to consider for managing this insect if your temperatures and insect activity (biofix) are similar to the HRC.

**Plum Curculio** - As stated in previous newsletters, the Cornell PC model assumes that insecticide residues only need to be maintained on fruit and foliage until PC adults stop immigrating into orchards and 40% of ovipositioning is complete. This is predicted by the model to occur at 308 DD (base 50F) after Petal Fall. In Dummerston and Shoreham, it is estimated that 308 DD was reached by June 11th, and was reached on June 15th in So. Burlington and So. Hero. It is predicted that no additional sprays for PC are needed if these dates fall within 10-14 days after a previous spray for PC.

**Obliquebanded Leafroller** - We have been monitoring flight of OBLR moths with pheromone traps at the UVM HRC to determine the biofix for a DD model which estimate egg hatch in high risk blocks and to estimate when to start sampling in low risk blocks. The biofix at the UVM HRC was on June 11. In high risk blocks with a past history of OBLR damage, an optimal time to spray is at egg hatch which is estimated at 360 DD (base 43F) from the biofix. As of June 18th, we had accumulated approximately 193 DD. In low risk blocks with no prior history of OBLR damage, a good time to inspect fruit clusters or expanding terminals is at approx. 600 DD from the biofix. Page 74 of the 2007 New England Tree-Fruit Pest Management Guide provides sampling details. The threshold to treat is 3% infestation.

**Apple Maggot** - Yes, it is that time of year again. Time to clean your apple maggot traps and start to put them in your orchard to monitor this insect. Use at least three traps per block. Begin monitoring in blocks with early-maturing cultivars.

**Potato Leafhopper** - This insect, which is blown up from southern states, have been observed in orchard blocks for the past two weeks. Damage can be significant in young orchards where terminal growth is affected. Check your orchard for this insect.

**Arthropod Activity to “Expect” based on Degree Days:** The following are the estimated degree day accumulations (Base 50F) from January 1, 2007:

**2007 Degree Day Accumulation for Arthropod Pests**

2007 <b>Estimated</b> Degree-Day Accumulation (Base 50F, from Jan. 1) for Selected Sites				
Date	UVM HRC South Burlington Chittenden Co. Elev. 71 M	Shoreham Addison Co. Elev. 107 M	South Hero Grand Isle Co. Elev. 54M	Dummerston Windham Co. Elev. 171 M
6/16	587	594	587	610

**2007 Guide to Arthropod Pest Events Based on Degree-Day Accumulations<sup>1</sup>**

Pest/Phenology Event	Estimated DD Base 50 F (Jan 1)
STLM - 2nd gen. 1st adult catch	560-740
SJS - 1st crawlers observed	619-757
OBLR - peak catch	565-827
AMF - 1st capture	750-1034
OFM - 2nd gen. 1st adult catch	784-1020

<sup>1</sup> Source of Estimated DD (Base 50F) for arthropod pest events: 2006 Pest Management Guidelines for Commercial Tree-Fruit Production. A Cornell Cooperative Extension Publication, Table 14: "Degree-day accumulations (from January 1) corresponding to selected fruit phenology and arthropod pest events." <http://www.nysaes.cornell.edu/ent/treefruit/>

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