

OrganicA

a resource for organic apple production

Orchard Observations

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July 22, 2009

A Reminder:

August 13, 2009 -- Please Mark Your Calendars -- There will be **presentations and a tour of the organic apple orchards** at the UVM Hort. Farm in South Burlington. This event is co-sponsored by NOFA-VT and the OrganicA Project. What has been learned about organic apple production will be discussed. Discussion and tour will be from **2:00 pm - 5:00 pm**. Details are at: http://www.nofavt.org/upcoming-event-details.php?e_id=1819 [Cost: \$10 for NOFA members, \$15 for nonmembers]

Hope to see you there !

It has been a while since the last Orchard Observations. Since then it has rained and rained. It has been difficult to get into the orchard to look closely at what is happening because of all the rain. Plus, we have had thunderstorms with **hail**. And, yes, the apples have been “kissed by nature” -- the apples have some “dings” (i.e., small dents) made by hail. It could be worse -- the apples and foliage could be all cut up and, with fire blight inoculum in the orchards, that would be a very serious situation. So far we have had three hail events in the area that potentially have contributed to the damage we are observing on the fruit: June 26, July 7, and July 16. We have not done an assessment of what percentage of the fruit has been damaged yet but will do so soon. Hopefully, the apples will not be damaged further.



Example of fruit where hail damage resulted in a cut; rot is beginning.

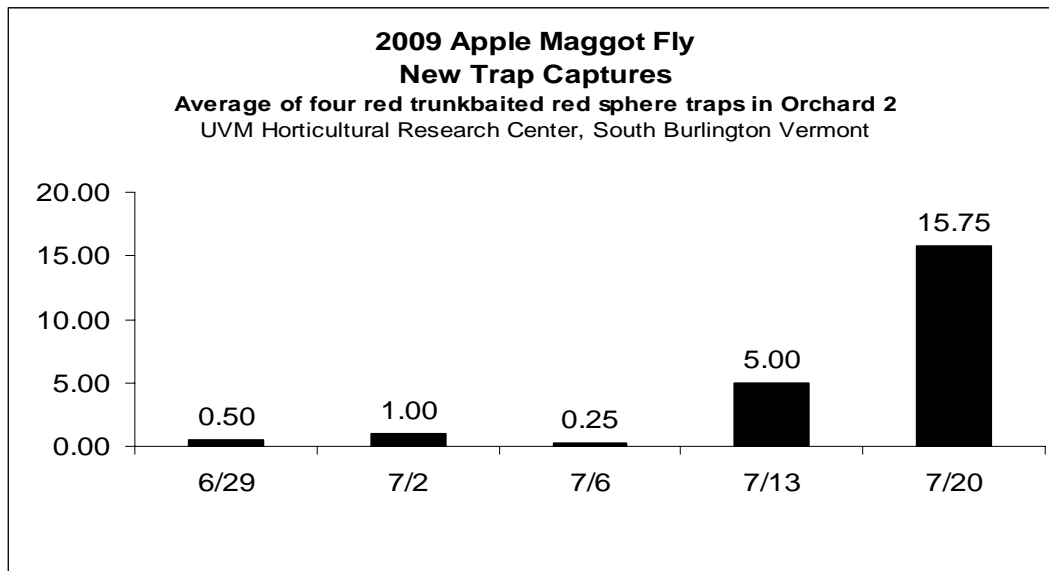
On a weekly basis, we have been scouting both organic orchards to see if any new **fire blight** strikes appear. We try to schedule this when a few hours of sun are predicted so if we need to cut out any strikes, we can do it when rain is not potentially splashing around inoculum. The good news is that there have been no new infections in Orchard I for the last three weeks

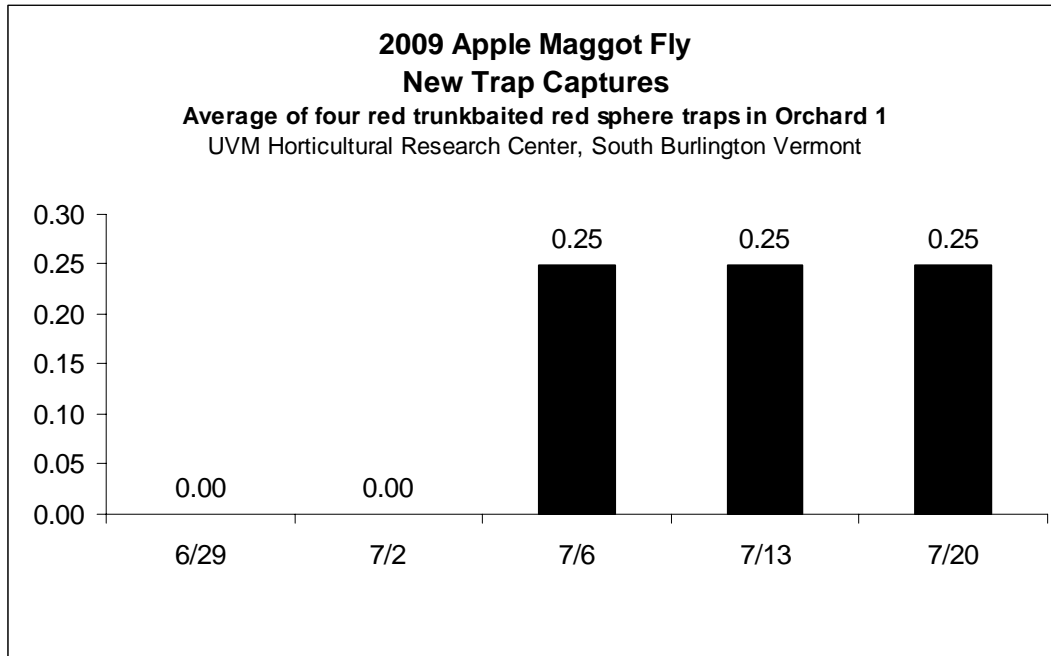
and the number of new strikes that have appeared in Orchard 2 have decreased to only 1 new strike last week. We are waiting for some sunshine this week to continue our scouting.



Morgan Cromwell scouting for new fire blight strikes in Orchard 1

Apple Maggot Fly trap captures have been over threshold levels in Orchard 2 and we have had to intervene twice with an insecticide application (last week and again this week). The following graphs show the trap captures from the baited red spheres in Orchard 1 and Orchard 2. Orchard 2 was very close to non-managed crab apple trees last year which we assume is where the apple maggot population overwintered and from which the apple maggot flies are migrating into Orchard 2. The good news is that the non-managed crab apple trees which were a significant source of insect pests and disease inoculum for the organic apple orchards have been removed -- but this growing season we are still fighting the carry-over populations from last year.





Over the last two weeks we also have been able to “clean up” another source of disease inoculum that impacted the organic apple orchards. The farm had a very neglected collection of juniper trees which was an important source of inoculum for **cedar apple rust**. This year being so wet, rust lesions are evident on foliage and on some fruit. With the removal of the juniper trees, the potential for disease will be greatly reduced in the future.



Rust lesions on fruit and foliage

Some good news to report ... natural **biological control** of green apple aphids was successful and there are many dead bodies in each orchard ! It also appears that before rosy apple aphids migrated out of the orchard there was significant mortality by natural predators. [I

did include a picture below of damage that RAA infestations can cause to fruit; this damage appears to be limited in the orchards.]



Dead Green Apple Aphid (left) and Rosy Aphid (right) bodies -- the result of biocontrol !



Rosy Apple Aphid damage to foliage and fruit.

Discovery of an unwanted “guest” in Orchard I -- Last week as Morgan Cromwell was scouting for new fire blight strikes she noticed a shoot dying back on a tree in Orchard I. On closer inspection, the damage was not caused by fire blight but by a **borer** in the tree. The pictures below show the white larva with a brown head capsule sticking out of where the shoot attached to the trunk. Needless to say, the larva’s life span was abruptly curtailed.



Limb and larva



Larva with brown head capsule in tree

Obliquebanded Leafroller (OBLR) DD Update - The biofix at the farm for when moths started to be captured in pheromone traps was June 22. As of Monday morning (July 20), 695 DD (base 43F) had accumulated from that biofix. At 600 DD from the biofix, it is estimated that 50% of eggs have hatched and it is the time when the earliest larvae are at a stage that is large enough to be seen while scouting. A sampling procedure is outlined on page 80 of the 2009 New England Tree Fruit Management Guide. The threshold for intervention is 3% infestation sites. If under this threshold, it is recommended to scout again in 3-5 days (or when approximately an additional 100 DD have accumulated).

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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