Cornell University Cooperative Extension

Eastern NY Commercial Horticulture Program

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Tree Fruit News

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Weather Data

Degree Day Accumulations (03/01 through 09/17/2014, via NEWA)		
Location	Base 43 F	Base 50 F
Peru	3181.7	2145.0
Watermill	3259.9	2179.6
Clifton Park	3336.3	2277.6
Marlboro	3562.6	2456.9
Hudson	3649.2	2550.2
Highland	3671.9	2554.7

In this issue of Tree Fruit News:

Harvest Update for the Eastern New York Region

Anna Wallis & Dan Donahue, ENYCHP

In the Hudson Valley, excellent coloring weather has returned. Rainfall has been in short supply since August, and continued irrigation is necessary on later varieties. Gala harvest is complete. Many growers have completed two spot picks of Honeycrisp, with a 3rd pick remaining in some blocks, while others are complete. Pre-harvest drop in Honeycrisp has not been an issue so far. McIntosh harvest is ongoing for regular storage and fall sales. Ethylene development has advanced in macs, but there have been no reports received of excessive drop at this time. Spot picking of high-colored strains of Cortland has begun, with standard strains ready to be picked for controlled-atmosphere storage early next week.

Look at Spartan/Acey Mac's for CA picking now. Some early Fuji strains have been spot-picked, others will be ready next week. Empires were tested for the first time this week. Starch ratings averaged 3.1, with CA picking in non-ReTain/non-Harvista blocks likely to begin around September 25. NY-1 ("Snapdragon" once it is in the bin), is close to ready for a spot-pick. However, consider holding for fruit elongation and flavor development to occur. Ethylene is being expressed in NY-1, perhaps a little more than we might expect at this time. If you decide to hold the apples on the tree for improved eating quality, keep an eye out for the fruit beginning to loosen as pre-harvest drop is a possibility with this variety.

In the Champlain Valley, cooler weather across the region this week has helped with color development of fruit. The first frost of the season was reported in Lake Placid and northern areas this past Sunday night. Spot picking of Macs and Honeycrisp started at the end of last week. The first full pick will take place at the end of this week or the beginning of next, followed by a second pick in an additional 7-10 days. Cortland and NY-1 are still very immature, with anticipated harvest in 7-10 days.

Detailed maturity data for the week of 09/15/14 is now available; please read the 09/18/14 E-Harvest Alert for more specific information (starch, pressure, brix, ethylene) on selected blocks from

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Harvest Update for the Eastern New York Region, continued from previous page

Orange County north to the Canadian border. So far, this harvest season has offered no surprises. Restated from our last newsletter, Dr. Chris Watkins has made the comment that the growing season in the Valley has been relatively normal, and we needn't expect anything out of the ordinary as far as storage issues.

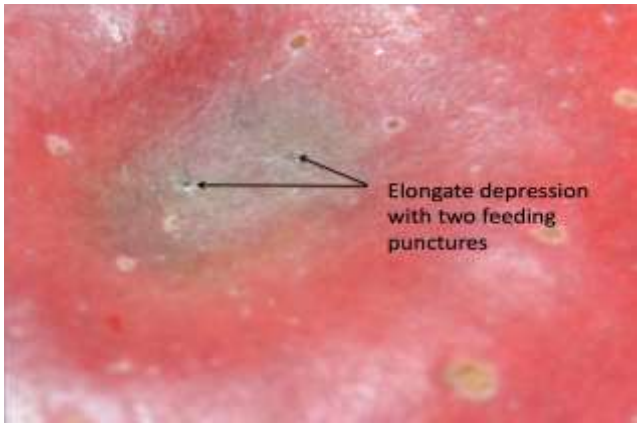
We have not received any reports of labor shortages or stepped-up enforcement actions. There have been concerns about frost events in the Champlain Valley, but no verifiable reports. At this point in time, the harvest in Eastern New York looks remarkably similar to last season. Western New York, on the other hand, appears to be running a week behind "normal" this year. However, the season is expected to tighten-up as harvest progresses. In anecdotal observations, the Hudson Valley appears to be picking out at 85-90% of an average crop, which has been consistent with earlier season estimates. Rainfall and continued irrigation could help boost that number, but significant rainfall is not in the near-term forecast.

BMSB Update: Assessing Fruit Damage at Harvest Is it Hail, Bitter Pit, Apple Maggot or Stink Bug?

By Peter Jentsch, Cornell University Dept. of Entomology, posted to online blog September 18, 2014
http://blogs.cornell.edu/jentsch/

Over the past two weeks we have been seeing an increase in feeding injury from the invasive brown marmorated stink bug on red and yellow colored varieties. As injury does not express itself immediately on the fruit, apple recently fed upon by the SB complex will likely be harvested and stored without blemish, only to find the same fruit with very high levels of fruit damage after its removal from cold storage. Efforts should be made to manage this insect complex prior to harvest.

Trapping efforts throughout the Hudson Valley have documented the presence of brown marmorated stink bug since late April. However, its presence in border trees or even in traps has not, up until late August, been a sign of BMSB presence in orchards causing feeding damage. Ths BMSB has recently begun movement into orchards to intensively feed, stocking up on reserves needed to successfully overwinter. In orchards throughout the Hudson Valley we've captured what we would consider the 'Provisional Threshold' numbers of adult BMSB in pheromone trap captures over the course of the past two weeks. First threshold occurred on the 11th of September. Continued populations have been observed above the 10 adult per trap threshold, sprayed prior to trap reset with an effective insecticide.



Multiple stink bug feeding punctures with discolored depression and corking to skin surface.

Severe BMSB feeding injury to Pink Lady

Much confusion about injury can arise at harvest given the four types of late season injury that can occur to fruit. These are:

Stink bug injury for three different species
(Green, Brown and Brown Marmorated stink bugs)

- A discolored depression.
- Always a 'sting' site in the center of the depression.
- Upon slicing, corking up to the skin surface.

Hail injury during the season

- A discolored depression.
- Never a 'sting' site in the center of the depression.
- Upon slicing, corking up to the skin surface.

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BMSB Update: Assessing Fruit Damage at Harvest, continued from previous page

Bitter pit from calcium deficiency requiring applications throughout the season

- A discolored depression.
- Never a 'sting' site in the center of the depression.
- Upon slicing, corking separated from the skin surface.

Apple maggot from oviposition or egg laying site or 'sting' in fruit surface

- Sometimes a depression. Most often only slight discoloration.
- Always a 'sting' site in the center of the depression.
- Upon slicing, no corking BUT soft, oxidized fruit flesh, often with tunneling well into the fruit.
- Sting larger then SB feeding site, and always easy to see.
- Cutting directly beneath the sting will give rise to juice seeping up from the egg laying sting.

See images related to injury in this article

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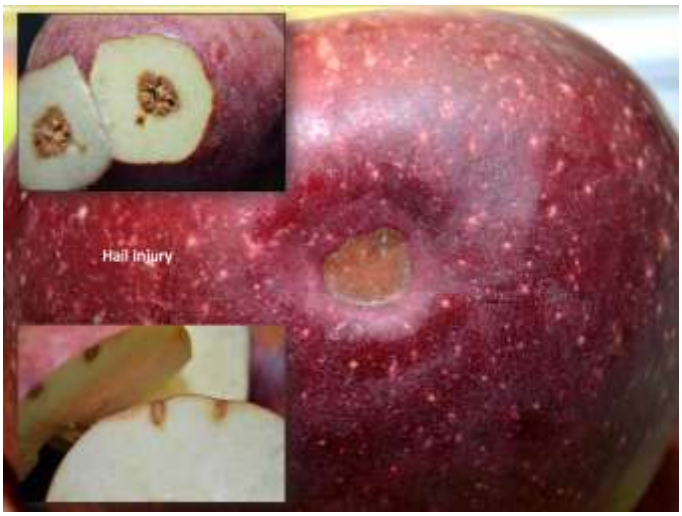
Apple Maggot on Baited Red Sticky Sphere

Apple Maggot Sting, oxidation and trails through fruit.



Hail Injured fruit with discolored depression, shallow corking to skin surface; No feeding puncture.

Bitter Pit on Jonagold, August 2012

Comparison of bitter pit and stink bug injury

BMSB Update: Assessing Fruit Damage at Harvest, continued from previous page

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Indications of stink bug presence can be observed in the presence of live SB in fruit clusters and harvested bins with examples of fruit injury of varieties remaining on the trees as is shown in the photos below. Control measures should be taken if this type of fruit injury is being observed. Very few insecticides are very effective against this insect complex with regards to residual efficacy. Those listed below are labeled for use against BMSB in NY and represent the best of university and USDA bioassay tested insecticides that will help to reduce the injury and increase mortality of the population. Consider using a non-ionic surfactant to increase penetration of the active ingredients. However, a tight schedule of no less than 7 days should be made if new fruit damage and stink bug adults continue.

Upcoming Meetings

No meeting announcements at this time

GAPS Help?

If you want help with writing your GAPs plan or need to get ready for your first inspection, contact Erik Schellenberg (jk2642@cornell.edu). He is prepared to help you take the next steps needed to get that inspection and to be GAPs certified. This fall, we plan on having more 2-day classes, across the region for those who have yet to get started with their plans or investigating "what it takes".

Please call 845-344-1234, and ask for Erik, if you have questions or want to book an appointment with him.

Eastern NY Commercial Horticulture Website

For online class registrations, announcements, older issues of our newsletters and more, please visit the Eastern NY Commercial Horticulture Team's website at http://enych.cce.cornell.edu/. We hope you bookmark it on your computer and begin using it as your 'go to' website for production and marketing information.

Email or call any of the educators with questions or comments on the website – we want to make it work for YOU!

Every effort has been made to provide correct, complete and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly, and human errors are possible. These recommendations are not a substitute for pesticide labelling. Please read the label before applying any pesticide. This material is based upon work supported by Smith Lever funds from the Cooperative State Research, Education, and Extension.