



Healthy Fruit

Volume 13, 2005

Prepared by the University of Massachusetts Fruit Team

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Upcoming Meetings/Events

Date	Meeting/Event	Location	Time	Information
August 18	NEFCON Research & Demonstration Field Day	Apex Orchard 153 Peckville Road Shelburne, MA	9 AM – 2 PM	Glen Morin, NEFCON 413-367-9578 nefcon@aol.com *

* RSVP by Monday, August 1, 413-367-9578.

Summer disease pressure likely high

As we approach August with plenty of heat, humidity, and thunderstorms, summer disease pressure on apples remains high. Application of Topsin-M plus Captan is the old standby for control of sooty blotch and flyspeck during this period. Flint and Sovran are alternatives. These latter materials may be better choices on varieties such as Honeycrisp and Spencer that appear to be particularly susceptible to summer rots. Spray intervals should be governed by rain frequency – see Orchard Radar (<http://pronewengland.org/Content/PROInfoDecisionModels.htm>) for flyspeck fungicide re-spray estimates based on weather and fungicide. Be sure to keep an eye on pre-harvest intervals when spraying early maturing apple varieties. Don't forget that summer pruning and frequent mowing of the orchard floor can significantly reduce canopy humidity and thus summer disease pressure. J. Clements

Brown rot on peaches

As peaches mature and we approach harvest, brown rot will become more of a problem. For the few weeks prior to and during harvest, applications of SI fungicides (Indar, Orbit, Elite) to control brown rot are mandatory. Frequent applications may be necessary if the weather is warm and humid – these fungicides have a 0 day PHI (pre-harvest interval). J. Clements

Apple maggot at peak?

Late July and mid-August is traditionally the peak time of apple maggot fly activity. Pressure from apple maggot varies greatly by location, but it's safe to say most orchards should be applying the very effective OP insecticides (Imidan or Guthion) to protect against damage by this pest. There are other insecticide alternatives – consider this from the most recent edition of Scaffolds Fruit Journal, July 25, 2005:

Recent laboratory and field tests have shown that newer "reduced risk" compounds, such as SpinTor, Actara, Assail and Provado, have activity

against the AM. When these materials were tested in NY, they provided comparable control to a standard treatment of Guthion, but weekly sprays were necessary for SpinTor because of its short residual effectiveness. These materials, particularly Provado, have very little contact activity and must be ingested by the flies to be effective. Laboratory trials have shown that the effectiveness of Provado against AM can be increased by adding sugar as a feeding stimulant, but these same effects have not been demonstrated in the field. Ongoing work is being conducted on an improved feeding stimulant bait that can be mixed with these types of new insecticides to increase their effectiveness. Additional trials of other new materials are being tested in the laboratory and field against AM, including: Calypso, and Spintor+sugar-baited spheres. Kaolin clay (Surround) has also shown good potential for use against AM, although application frequency and rate are key factors in its efficacy for this purpose.

Time for leaf analysis

Growers are encouraged to do a leaf analysis (apple, peach, grape) by block every few years. Attached are directions for how and when to sample, as well as a submittal form for the UMass Soil and Plant Tissue Test Laboratory. Please call me if any questions. J. Clements

Guest article – ReTain use on peaches

In 2004, ReTain was registered for use on peaches. Clearly there are some benefits when using ReTain on peaches, Following is an article by Win Cowgill of Rutgers Cooperative Extension about ReTain use on peaches:

Managing Peach Harvest with ReTain® in 2005 **Win Cowgill, Area Fruit Agent**

In the past two issues of the Fruit Plant and Pest we discussed the use of Retain for apples. In 2004 Retain has received a full national label for peaches in the US.

New Jersey growers must focus harvest management strategies for optimum fruit quality. Consumer demand, market demand, storage requirements and labor availability all influence harvest decisions. Retain can be a tool for peach growers to manage peaches. Retain has been evaluated on multiple peach varieties over multiple years. In general ReTain is a harvest management tool that slows the fruit maturation process.

ReTain works by retarding the development of ethylene, the chemical that causes ripening. The active ingredient is a natural occurring product aminoethoxyvinylglycine (AVG), which is produced by fermentation. The fermentation process required to produce AVG is very difficult and very expensive. As a result, ReTain retails for \$200 - \$240 per acre. Because of this, ReTain should only be used in high value varieties with a large crop of unblemished fruit.

Benefits on Peach include:

- Allow you to let peaches hang on the tree longer, allowing greater color development.

- Allow you to stagger harvest of a particular variety if needed, delaying harvest up to four days.
- Increased fruit firmness at harvest across most varieties tested allowing you to pick more mature fruit that is still firm when handled
- Increased fruit firmness in cold storage over several weeks time

Retain works slightly different on each variety; you will need to evaluate it on a variety-by-variety basis. On a few cultivars there is very little effect -- Redhaven is the most notable example.

ReTain must be applied 7-14 days prior to anticipated harvest to be effective, therefore it is essential growers carefully project ripening dates of each individual block which they plan to use ReTain this season. There is a 7-day PHI on Retain with peaches and nectarines.

Important considerations to follow with ReTain® applications on peaches in New Jersey

- Use the full rate of ReTain® (1 pouch or 333 grams/Acre of formulated product) for peaches and nectarines
- Apply 7-14 days before normal anticipated harvest. (when harvest would be expected if not treated with Retain)
- Use of organosilicone surfactant is not required on stone fruits but may be beneficial.
- If desired use an organosilicone surfactants such as: Silwet L77 at 6.5-13 fluid ounces per 100 gallons, or Sylguard 309 at 6.5-13 fluid ounces per 100 gallons. When high temperatures prevail, the lower rate of surfactant is recommended.
- Non-ionic surfactants may also be used.
- ReTain® should be applied with a sufficient amount of water to ensure thorough wetting of the fruit and foliage while avoiding spray run-off. Adjust water volume based on tree size and spacing. No alternate row spraying. 100 gallons per acre at 2x has shown to be effective.
- For optimum results apply during periods of slow drying weather conditions. No rainfall or irrigation should occur within six hours of ReTain application.
- Do not apply ReTain® to trees under stress. They may not respond to the benefits of ReTain®.
- Tank mix ReTain® with other agricultural products has not been fully evaluated.

Note: read the label completely to fully understand the use of Retain on stone fruit, there are significant differences in use as compared to apple.

If you have specific questions regarding the use of Retain on peaches do not hesitate to contact me <cowgill@rce.rutgers.edu>

Note: the next Healthy Fruit will be published August 9, 2005.

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