



# Healthy Fruit

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Prepared by the University of Massachusetts Fruit Team

## Issue 19 - August 13, 2002

### *Duane Greene's 'Harvest the Potential' Report for August 13, 2002*

Adequate moisture and warm temperatures have prevailed which has resulted in good fruit growth and generally above average fruit size for this time of year. (Note: the eastern part of Massachusetts has been on the dry side. Where possible, growers are advised to and have been irrigating.) Fruit size, even on heavily set trees is good. Secondary scab is present in low amounts in some orchards. Based upon time of ripening of early maturing varieties, it appears that fruit maturity is close to historical norms. Therefore, the timing of ReTain application for McIntosh and Gala should be during the second or third week in August. The time period when you apply ReTain is quite broad so that you can select a day for application with little wind. Although the surfactants used with ReTain do impart significant rain-fastness, it is best to avoid application when the probability of rain is imminent. Good spray coverage is essential for good drop control and summer pruning improves spray coverage. Summer pruning should be completed in designated blocks before ReTain application. ReTain is an important harvest management tool. Now that fruit set and fruit size can be judged in individual blocks, the time before ReTain application is an opportunity to craft your harvest management strategy for the fall. (Note: A useful tool for evaluating the economics of ReTain application is the ReTain 'Crunch' Calculator, available at the Valent web site, [www.valent.com](http://www.valent.com).)

#### ***Estimated McIntosh Harvest Date***

Based on a maturity model developed at Cornell University, and the mean daily temperatures for 30 days-after-full-bloom (May 8) at the UMass Cold Spring Orchard, the predicted LAST harvest date for CA storage-bound McIntosh is September 24. This suggests maturity is a few days behind last year but near historical averages, despite the early bloom. But temperatures following bloom were on the cool side, and this figures into the formula by delaying maturity.

#### ***Mark Your Calendar: Peach and Early Apple Variety Showcase***

**When:** August 29, 2002, 5 – 7 P.M.

**Where:** UMass Cold Spring Orchard, Belchertown

**What:** Peach and early apple varieties will be displayed. Featured will be selections from the 'Stellar' series of peaches as well as commercial favorites grown in Massachusetts. Early apples including Zestar, Sansa, and GingerGold will also be on display and available for tasting. Growers are encouraged to bring samples of their own fruit, both peaches and apples. Refreshments will be served. For more information contact Jon Clements, 413-323-4208.

#### ***Food Safety During Harvest***

*Craig Hollingsworth, UMass Extension*

Good sanitation practices during harvesting can help to reduce the risk of microbial contamination of fresh produce. Soil, fertilizers, harvesting equipment, water, workers, pets and pests can all be sources of harmful microorganisms that can cause foodborne illness. Therefore it is important that grower's set up measures to help prevent these sources of microorganisms from contaminating produce.

Good sanitation practices include cleaning and sanitizing all food contact surfaces, encouraging worker hygiene and training and keeping animals out of fields, orchards and packing house.

What do we mean by "food contact surface", "cleaning" and "sanitizing?"

- C A **food contact surface** is a surface that comes into contact with the fresh produce any time during harvesting, packing or transporting.
- C **Cleaning** means to remove soil and residues from food contact surfaces by washing and scrubbing with soap or detergent, then rinsing with clean potable water.
- C **Sanitizing** means to treat a food contact surface with a sanitizing solution that will kill most microorganisms. Surfaces must be cleaned first before they can be sanitized. Soil and soap residues can inactivate the sanitizing solution.
- C A **sanitizing solution** is made by mixing a small measured amount of a sanitizer with potable water according to the directions given by the manufacturer.
- C A **sanitizer** is a chemical compound designed to kill microorganisms. The most commonly used are chlorine bleach and quaternary ammonium compounds.

**Take a walk through your harvesting operation and check for these signs of potential food safety hazards:**

- C Pets, livestock, poultry or wildlife in fields
- C Human or animal waste in fields and orchards
- C Sick or unclean workers
- C Dirty harvest containers
- C Produce laden with dirt or manure
- C Broken and dirty harvest equipment

**What can you do?**

- C Wash, rinse and sanitize, when possible and practical, all crop containers before harvest.
- C When sanitizing, use an approved sanitizer according to the manufacturer's directions. Common sanitizers include chlorine bleach and quaternary ammonia. Store sanitizers and solutions away from the produce.
- C Cover harvest containers to keep crop dust, animals, insects and birds out.
- C Clean harvesting aids each day with potable water. This means they should be free of visible soil and residue.
- C Keep harvesting equipment in good working order. Set up a maintenance schedule.
- C Train workers to follow good hygiene practices.
- C Do not haul produce in equipment that has been used to transport garbage, manure or animals.

*[Adapted from the New England Extension Food Safety Consortium]*

***Apple Maggot***

Captures continue at a moderate level. Populations appear to be moderate to low in most orchards. Control options and PHI's

are: Avaunt, 28 days; Guthion, 30 day in PYO, 14 days otherwise if rate is <1#/acre; Imidan, 7 days; SpinTor, 14 days.

***Mites***

The hot weather of the past couple of weeks brought out some spotty outbreaks of red mites, but, in general, mite levels are very low. Continue monitoring for another week or two to prevent unpleasant surprises, especially if you do have some low-level mite populations, but it seems unlikely that mite populations could build from nearly non-existent to treatable levels in the short time remaining before harvest. Speaking of harvest, the PHI's for summer miticides on apple are: Acramite, 7 days; Apollo, 45 days; Kelthane, 7 days; oil, see label; Pyramite, 25 days, Savey, 28 days, Vendex 14 days. The PHI for Agri-Mek is 28 days, but remember that translaminar uptake is greatly reduced after the optimal timing of the first two weeks after petal fall.

***Leafhoppers***

So far, not much immigration of adults of the last generation has occurred, but keep an eye out where outbreaks have occurred before. Control options and PHI's are: Actara, 14 days if 2.75 oz/acre or less is used, otherwise 35 days; Avaunt, 28 days; Provado, 7 days; Sevin, 3 days; Thiodan, 21 days.

PHI's are from the New England Apple Pest Management Guide and updates; check your own label before making an application, since there is some variation in labelling. Your label is the law.