Apple Maturity - Fruit Maturing Early
First Report for North-Central New Jersey – Reporting 16 days earlier than last year
Win Cowgill, Agricultural Agent and Suzanne Sollner-Figler, Research Assistant

Apple blocks in Northern New Jersey appear to be maturing significantly early this year. We are finding maturity is 15 days earlier than a normal year. I began testing fruit last Friday, August 4th. McIntosh seems most advanced, a full 3 weeks earlier at the Rutgers Snyder Farm.

Apple growers should be VERY observant as we approach Gala, McIntosh and Honeycrisp harvest in North-Central Jersey. All three of these varieties are significantly advanced. On my rounds to orchards last Friday, Sunday and Monday, McIntosh is the most advanced of the three, Honeycrisp the least. Even Macs treated with ½ rate of Retain + NAA two weeks ago, were a little loose. Make sure to walk your blocks and see what your fruit is looking like. These 90°F days and 70°F nights moved things along.

All three cultivars do not have enough color yet. Hopefully we will have some more cool nights and start some color development. I believe the significant number of 90°F days this summer has advanced apple fruit maturity (8-10 days). Galas should be harvested when the background color turns cream.

All peach cultivars I am harvesting are running 2 weeks early.
Retain has a seven day PHI - if you are still two weeks out you can get some benefit by applying to Macs, Galas or Honeycrisp. For Macs, use the full rate plus 10 ppm NAA, for Honeycrisp, 1/3 to ½ rate plus NAA for Galas, ½ rate but leave out the NAA.

Watch how loose the fruit is and as they mature at least consider NAA alone for stop drop at 10-20 ppm. Remember it takes NAA 3 days to work! It can be applied on top of Retain treated fruit.

Note: Next week will be time to think of applying Retain to Empire, Liberty, Red Delicious and Macoun varieties in northwest New Jersey.

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Maturity Testing
As in past years I collect fruit samples from various locations in North Central New Jersey for maturity testing. I begin sampling on Sunday and finish on Monday, testing Tuesday morning for this Tuesday afternoon’s Plant and Pest Advisory weekly newsletter.

See Apple Maturity on page 2
Be sure to note the date on each cultivar listed, as the sampling dates will vary.

McIntosh growers in Central and North Jersey should watch their Mac’s closely for early maturity development and drop. They are running a full 2-3 weeks ahead of normal, more like 3…

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Retain</th>
<th>Pressure</th>
<th>Brix</th>
<th>Starch-Iodine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rogers Red Mac Snyder</td>
<td>8/07</td>
<td>yes</td>
<td>14.7</td>
<td>11% 3.6</td>
<td></td>
</tr>
<tr>
<td>Linda Mac Snyder</td>
<td>8/07</td>
<td>yes</td>
<td>15.1</td>
<td>10 3</td>
<td></td>
</tr>
<tr>
<td>Rogers Red Snyder</td>
<td>8/07</td>
<td>yes</td>
<td>15.1</td>
<td>10 3</td>
<td></td>
</tr>
<tr>
<td>Linda Mac Long Valley</td>
<td>8/03</td>
<td>no</td>
<td>18.9</td>
<td>12 1.4</td>
<td></td>
</tr>
</tbody>
</table>

Hunterdon - Location  Date Retain Pressure Brix Starch
Gala cv Mitchel Snyder  8/07 yes 19.6  10.9 3.3
Honeycrisp is developing good red color this year with cool night temperatures in the fifties.

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Retain</th>
<th>Pressure</th>
<th>Brix</th>
<th>Starch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paula Red Blairstown 8/4 N 15.6  10 2.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spartan Blairstown 8/4 N 17.4  11.8 2.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gala – Color is just starting, even the newest higher colored strains do not have enough color yet. Avoid any additional moisture stress in Gala until harvest. Background color is one of the best indicators of maturity for Gala, but is hard to observe on the all red strains. Most Galas in Hunterdon and Morris were ready for first pick. Fresh market Galas should be harvested when the background color is turning from a yellow to a cream color. SI index with the Gala Starch chart can be a guideline as well.

Honeycrisp is developing good red color this year with cool night temperatures in the fifties.

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Retain</th>
<th>Pressure</th>
<th>Brix</th>
<th>Starch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honeycrisp Princeton 8/03 No 18.5  10.3 1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honeycrisp Snyder 8/04 yes 16.1  10 1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honeycrisp Long Valley 8/3 no 19  10.5 1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Growers should note that Honeycrisp can drop severely and the tendency is to pick it early with red color development. If it is picked prematurely it may not develop the full array of flavor that this apple is noted for. It will be then hard to demand the premium price it deserves well. A lousy eating Honeycrisp is a lousy apple.

———

Calendar of Events


August 29, 2012, 3:00 – DUSK. Tomato Tasting. Rutgers Snyder Farm, 140 Locust Grove Rd, Pittstown, NJ. Contact Joanne Stevely, stevely@aesop.rutgers.edu (908) 730-9419 RSVP website: http://snyderfarm.rutgers.edu/tomatoes.html. Event will be held Rain or Shine - Fee is $7.00.

December 4-6, 2012, no times as of yet, Great Lakes Fruit, Vegetable & Farm Market EXPO, DeVos Convention Center, Grand Rapids, Mich. For more info visit: www.glexpo.com

January 10-13, 2013, no times as of yet, Southeast Regional Fruit & Vegetable Conf., International Trade & Conv. Center., Savannah, GA. For more info call 877-994-3842 or visit: www.gfvga.org.
Peach
✔ Brown Marmorated Stink Bug (BMSB): Activity increased slightly last week. A few adults were observed mating in harvested blocks and some growers reported finding adults in bins while harvesting.
✔ Tufted Apple Budmoth (TABM): If TABM has been a problem, and trap counts were high during the first generation, then plan on treatments for the second generation. Timings for these sprays are as follows:

<table>
<thead>
<tr>
<th>County Area</th>
<th>AM</th>
<th>2nd past</th>
<th>2nd past</th>
<th>2nd past; 3rd 8/9-8/11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern</td>
<td>4th 8/7-8/9</td>
<td>2nd 8/6-8/9</td>
<td>2nd 8/6-8/9</td>
<td>2nd past; 3rd 8/11-8/13</td>
</tr>
<tr>
<td>Central</td>
<td>3rd 8/9-8/10; 4th 8/12-8/13</td>
<td>2nd 8/11-8/14</td>
<td>2nd 8/11-8/14</td>
<td>2nd past 3rd 8/15-8/18</td>
</tr>
</tbody>
</table>

✔ Brown Rot: Rot continues to be noticed in later ripening varieties. Gem at high rates and propiconazole (when applied within 24 hours after an infection) appear to be helping to suppress sporulation and therefore spread. Most rot infected fruit appear to have shattered or split pits.

Apple
✔ Codling Moth (CM): All timings for CM sprays have passed in all areas of the state. However sprays may not be over. Growers who have had a history of CM injury should maintain coverage with very effective materials. Most of the materials used for TABM control, except for BT should control CM. Be sure to adjust the rate since in some cases it is higher for CM control than TABM. Update: Trap Captures increased in most northern county and in a few southern county orchards last week.
✔ Green Apple Aphids: High levels of biological control are being observed in northern county orchards. No treatments should be needed for this pest at this time.

Grape
✔ Grape Berry Moth (GBM): The next predicted timings for 3rd brood applications using Intrepid is on or about 8/19 in southern counties.

Capture Southern Counties

<table>
<thead>
<tr>
<th>Date</th>
<th>GBM</th>
<th>GRB</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/9</td>
<td>0.29</td>
<td>0</td>
</tr>
<tr>
<td>6/16</td>
<td>0.43</td>
<td>0</td>
</tr>
<tr>
<td>6/23</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>6/30</td>
<td>3.29</td>
<td>.8</td>
</tr>
<tr>
<td>7/7</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>7/14</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7/21</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>7/28</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>8/4</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

Trap Counts – Southern Counties

<table>
<thead>
<tr>
<th>Week ending</th>
<th>STLM</th>
<th>TABM-A</th>
<th>CM</th>
<th>AM</th>
<th>OFM-A</th>
<th>DWB</th>
<th>OFM-P</th>
<th>TABM-P</th>
<th>LPTB</th>
<th>PTB</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/7</td>
<td>15</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>21</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>7/14</td>
<td>23</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>14</td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>7/21</td>
<td>35</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>28</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>7/28</td>
<td>18</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>47</td>
<td>1</td>
<td>2</td>
<td>12</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>8/4</td>
<td>28</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>18</td>
<td>1</td>
<td>2</td>
<td>22</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Trap Counts – Northern Counties

<table>
<thead>
<tr>
<th>Week ending</th>
<th>STLM</th>
<th>CM</th>
<th>TABM-A</th>
<th>AM</th>
<th>DWB</th>
<th>OFM-P</th>
<th>TABM-P</th>
<th>OFM-P</th>
<th>OBLR</th>
<th>LPTB</th>
<th>PTB</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/7</td>
<td>85</td>
<td>1.3</td>
<td>2.4</td>
<td>0</td>
<td>1.3</td>
<td>0.5</td>
<td>1.0</td>
<td>5.9</td>
<td>7.2</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>7/14</td>
<td>210</td>
<td>2.8</td>
<td>1.4</td>
<td>0</td>
<td>7.0</td>
<td>2.0</td>
<td>3.0</td>
<td>2.1</td>
<td>5.8</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>7/21</td>
<td>283</td>
<td>2.6</td>
<td>1.0</td>
<td>0</td>
<td>2.0</td>
<td>4.0</td>
<td>1.4</td>
<td>2.9</td>
<td>3.7</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>7/28</td>
<td>93</td>
<td>3.3</td>
<td>2.5</td>
<td>0</td>
<td>1.8</td>
<td>2.0</td>
<td>1.1</td>
<td>2.9</td>
<td>3.3</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>8/4</td>
<td>71</td>
<td>3.5</td>
<td>2.2</td>
<td>0</td>
<td>1.5</td>
<td>3.0</td>
<td>1.7</td>
<td>2.4</td>
<td>4.6</td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>
Preparing Your Farm
Food Safety Plan
Part 11: Packinghouse Facility
Meredith Melendez, Mercer County Senior Program Coordinator and Wesley Kline, Ph.D., Cumberland County Agricultural Agent

Part 11 of your farm food safety plan addresses your packinghouse activities. This includes transportation of the product from the field to the packinghouse, product storage once it has been delivered to the packing house, the washing/packing line, ice, worker health and hygiene and packinghouse general housekeeping. Keep in mind that not all areas of the audit will apply to your farm based on your production practices. Those areas not applicable would be marked not applicable by the auditor. Areas that do apply but you are deficient in would result in a reduction of audit points. A minimum of 80% must be achieved in each section to pass the final audit. Conducting a mock audit is the best way to determine deficiencies and changes that will need to be made to your farm infrastructure and/or production practices.

The following statements and procedures should be considered to be included in your packinghouse facility section:

✔ Transported product is covered in a safe manner
✔ Product is stored properly in the packinghouse facility
✔ Product that will be packed several hours or days later is stored in a refrigerated cooler
✔ Water source used on washing and packing lines is tested and is potable
✔ Check the water temperature in dunk tanks on a scheduled basis (if applicable)
✔ Chlorine or other disinfectant is used to treat water and the labels are followed as to concentration, pH, water temperature and they are monitored (if applicable)
✔ Water contact surfaces are cleaned and sanitized prior to grading and packing
✔ Contact surfaces are cleaned and sanitized prior to grading and packing
✔ Packinghouse is thoroughly cleaned at the end of each day, including washing, grading, sorting and packing lines
✔ If ice is used during packing and the source of this ice (if you manufacture your own ice show that the water source is potable, if you purchase ice you will need a copy of the manufacturing and storage procedures from the manufacturer on file)
✔ State how the ice is transported from the truck/ice machine to the packing area
✔ Break areas are away from packing areas
✔ State your employee policies including: hairnet policy, jewelry policy and glove policy
✔ Train all employees on worker hygiene
✔ Indicate if produce is packed in new boxes and how it is stored once packed
✔ State where your box/container storage areas are located
✔ Use only food grade lubricants on the packing machinery and equipment
✔ Store non-food grade chemicals away from the packing area
✔ Keep packinghouse areas free from litter, debris and standing water
✔ Dumpsters are located away from the packinghouse or if close are covered
✔ Garbage cans inside the packinghouse weekly to ensure proper drainage
✔ Clean all pipes, fans and ceilings in the packinghouse on a scheduled basis
✔ Cover glass lights, in case of breakage, with shatter-proof covers
✔ State your commitment to make sure that wastewater spillage does not occur and describe your cleanup procedures should it occur
✔ Describe your procedure for cleaning or disposing of product that comes in contact with the floor
✔ Do not allow animals, including pets, in the packing area
✔ Describe the measures you use to keep pests out of the packinghouse
✔ Describe how contamination is prevented from motors, pipes and other equipment in the packinghouse
✔ Describe how harvested product coming into the packinghouse is identifiable to the field it was grown in, the harvest crew, and the date it was harvested

This is the eleventh article in a series dedicated to preparing a farm food safety plan. For previous articles refer to earlier editions of the Plant and Pest Advisory, or visit the Rutgers Vegetable Crops blog at: http://jerseyvegcropsagupdates.blogspot.com. Remember you may not need a third party audit; it depends on who is purchasing your produce. However, everyone should have a food safety plan.

For more information on Farm Food Safety visit: http://njveg.rutgers.edu/html/mf-food-safety.html.

Next week: Storage and Transportation ❑
Great Tomato Tasting
Rutgers Snyder Research and Extension Farm
140 Locust Grove Road,
Pittstown, Hunterdon County, NJ 08867
Wednesday – August 29, 2012 (Rain or Shine), 3pm - dusk

Rutgers New Jersey Agricultural Experiment Station and Rutgers Cooperative Extension proudly announce the Annual Snyder Farm Open House and Great Tomato Tasting!

The event includes the popular tasting of over 60 heirloom and hybrid varieties of beefsteak, plum, cherry and grape tomatoes. Also, tasting of apples and peaches from the NJAES Tree Fruit Breeding Program, basil, honey and more. The Melda C. Snyder Teaching Garden will showcase demonstration gardens of deer tolerant ornamentals; blueberries, hazelnuts, and hollies from the Rutgers breeding programs, along with a wall of fruit highlighting apple and upright growing peach trees for the home landscape.

Wagon tours of the farm’s research plots will be held throughout the event. Included will be chef demonstrations featuring preparation of several tomato recipes.

Rutgers NJAES faculty, staff and Master Gardener volunteers will be available to answer your gardening questions and to make your visit a pleasurable and memorable one.

Please bring a non-perishable food item to support the Rutgers Against Hunger (RAH) program; http://rah.rutgers.edu
Admission: $7.00 per person, children under 10 are free
RSVP please: 908-730-9419 x-3501 or online https://njaes.rutgers.edu/rsvp/tomato.

For more information visit: http://snyderfarm.rutgers.edu/tomatoes.html.

Encouraging a New Generation of Farmers
Incubator Farm Program Set to Debut in Hillsborough, NJ

A new program designed to provide a helping hand for beginning farmers is set to debut in the coming year. In collaboration with Duke Farms, the Northeast Organic Farming Association of New Jersey (NOFA-NJ) is launching an incubator farm that will create a network of solutions to a complex issue – too few beginning farmers and not enough access to farmland. The goal is to once again make small-scale farming a viable profession in New Jersey.

“We are thrilled to offer this new program,” said Eve Minson, Beginning Farmer Program coordinator. “The Incubator Farm is basically a low-risk opportunity for a new farmer to launch a business. Through this three-year program, he or she will have access to land and a chance to test out a business model on a small-scale, build up capital, graduate onto his or her own land and run a successful business.”

According to the USDA, the average age of American farmers is over 55 and continues to increase, while the number of young farmers under the age of 25 has declined by 30 percent. At the same time, new people are coming to agriculture and beginning farm enterprises; however, many of these new farmers do not come from farming backgrounds and may not possess the technical or hands-on skills needed to start a successful farming business. In response to this issue, the USDA has begun to grant funds to regionally-based groups to train and support beginning farmers through their Beginning Farmer and Rancher Development Program. NOFA-NJ was a recipient a Beginning Farmer and Rancher Development Grant in 2011.

“Duke Farms is pleased to support this innovative program that promotes farming in New Jersey,” said Timothy M. Taylor, executive director, Duke Farms Foundation. “Obtaining access to land is a major hurdle for most beginning farmers, so we are making 140 acres of our land available for the incubator farm. In addition, we also will also help in the preparation of the land by plowing, disking and tilling. Supporting healthy agricultural practices is part of our mission, to encourage and educate people to become good stewards of the land.”

Application information on the Beginner Farmer Program will be available later this year and farming will get underway in 2013. This project was supported by the Beginning Farmer and Rancher Development Program of the National Institute of Food and Agriculture, USDA, Grant #2011-49400-30739.

For more information, visit the NOFA-NJ Website at www.nofanj.org. NOFA-NJ is a membership-based educational non-profit organization that represents a unique collaboration among the stakeholders in our food system. Our members and our governing board include farmers, gardeners, consumers, retailers, processors, educators, policy-makers and researchers. NOFA-NJ serves as a catalyst in the development of a sustainable organic agricultural system; provide technical assistance to both organic and progressive conventional farmers to help build and maintain sustainable operations; educate diverse audiences about the significance and meaning of organic practices for food and the environment; and provide information and resources about current agricultural policy initiatives.

For further information, contact Alison Romano, NOFA-NJ, 334 River Road, Hillsborough, New Jersey 08844, 908-371-1111.
PLANT & PEST ADVISORY

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Pesticide User Responsibility: Use pesticides safely and follow instructions on labels. The pesticide user is responsible for proper use, storage and disposal, residues on crops, and damage caused by drift. For specific labels, special local-needs label 24(c) registration, or section 18 exemption, contact RCE in your County.

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