

# Weekly Berry Call – May 8, 2012

**Participants:** Mike Fargione (Hudson Valley NY), Sonia Schloemann (UMass, Massachusetts), Marvin Pritts (Finger Lakes region/Cornell), Laura McDermott (Eastern NY/Upper Hudson/Lower Adirondack), Dale Ila Riggs (Stephentown, Eastern NY), Kathy Demchak, (Pennsylvania State University, University Park), Pam Fisher, OMAFRA, (Ontario, Canada), Kevin Schooley, (NASGA, Ontario, Canada), Mary Conklin (UConn, Storrs, CT), Courtney Weber (Cornell/Geneva).

**Growing degree day summaries:** (courtesy Scaffolds Fruit Journal, Vol. 21, No. 9, May 7th)

Geneva readings are for western NY, Highland Lab is in the Hudson Valley of NYS.

<b>Week ending May 7, 2012:</b>	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1–5/7/12):	491	261
(Geneva 1/1–5/7/2011):	294	136
(Geneva "Normal"):	345	173
(Geneva 1/1–5/14 predicted):	598	324
(Highland 1/1–5/7/12):	637	328
(Highland 1/1–5/7/11):	390	192

## **NY NASS WEATHER, Week ending May 6, 2012**

**WEATHER:** The weather was unsettled much of the week with needed rainfall occurring. We started out with high pressure over the region and had issues with freeze and frost. The high moved eastward and shifted offshore Monday night then a series of low pressure systems moved across the region bringing bouts of rainfall chipping away at our deficits.

**FRUIT:** Apples were 61 percent petal fall. Peaches were 95 percent full bloom and 75 percent petal fall. Pears were 95 percent full bloom and 78 percent petal fall. Sweet cherries were 69 percent petal fall. Tart cherries were 94 percent petal fall. In Ontario County, grape producers were concerned over frost damage and will be monitoring the amount of yield damage in the next few weeks. In Cayuga County, producers were still determining the damage to fruit crops. In Saratoga County, some orchardists reported as high as a 60 percent anticipated loss to the crop. In Long Island, a few vineyards saw minor frost damage.

## **Reports from the Field**

**Pennsylvania** – Southeast PA is readying itself for strawberry harvest – U-Picks should open this week. Blueberries in bloom with many southern areas in green fruit. Has seen some curious problems with strawberries – see discussion.

**Hudson Valley, NY** – Blueberries in bloom, some damage this week from April 28th-30th frost, but wasn't able to look at areas that did do frost protection, so damage might not be as bad. The use of row covers on berries seemed to have helped a great deal.

**Connecticut** – Raspberries budding up, blueberries are blooming with green fruit. cv Lauren seems to have had a lot of winter kill. Frost damage to strawberries is location dependent.

**Massachusetts** – Frost damage to strawberries is location dependent and whether they protected or not. Blueberries pretty much the same as others are reporting. Raspberries may be having some problems with winter hardiness; grapes have had frost issues in low spots. Hopefully we will be able to avoid problems for the rest of May.

**Ithaca/Finger Lakes** – Blueberry petals are damaged, but it looks like they are still being pollinated. Strawberries have definitely seen damage to king bloom. Raspberries are slow but look ok and blackberries are the same.

**Eastern NY/Upper Hudson/Lower Adirondacks** – Blueberries in full bloom. Tight bud in raspberries. King blossoms on strawberries have pretty much had it everywhere. Late varieties may be ok. No buds noticeable on blackberries but canes look great. Primocane raspberry shoots slow to emerge.

**Stephentown, Eastern NY** – phenology is behind the Southern reports, just beginning bloom in blueberries; early and mid-season strawberry varieties have quite a few black centers, but row covers still seemed to have worked. Blackberries in uncovered tunnel did get frozen, but began picking 1st strawberries in tunnel this week. Seeing some strawberry rootworm damage in older plantings.

**Ontario, Canada** – (Pam) Strawberry development is all over the map – lots of frost damage –which is very disappointing. Albion in full bloom was protected by row cover and trickle irrigation on top of cover still got major injury. It was just too cold. Wondering

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about some winter damage to raspberry buds and even the leaf buds as have seen some browning on the canes. Blueberries are still just sitting still. Questions for Frank Caruso from Ontario cranberry growers; cranberry growers – still had water on the fields – plants under water for some time – how will this affect yield. (Kevin) Berry progression has been at a standstill for quite a while. Blueberries are still sitting reasonably tight. Strawberry growth similar to others on call. Not as much frost protection as he would have thought. Irrigation over row cover provided great protection

**Western NY/Geneva** – quite a bit of damage from last weekends' frost, DN strawberries from fall planting were already in bloom. Raspberries had lots of leaf injury from frost so he is worried. Primocanes slow to emerge. Tunnel covers went on high tunnels this week – may help primocanes emerge. More winter damage RB floricanes than he would have expected given the winter.

**Guest Speaker, Dr. Courtney Weber, Cornell University Small Fruit Breeder, NYSAES, Geneva.**

2012 New Releases:

- **Herriot** - June bearing Strawberry – mid season similar to Jewel perhaps 1-2 days earlier, with similar size but better disease resistance than Jewel. Similar excellent fruit quality, but slightly more variable than Jewel from year to year. Still the average fruit quality is very high. Also high yielding.
- **Purple Wonder** – June bearing strawberry for home gardener market. Only available through Burpee - 1 plant at a time for \$9.95/potted plant. Very dark, purplish color. Great flavor. The variety has gotten lots of press. Burpee approached Courtney about novelty type fruit and as the commercial nurseries were not interested, this new approach seemed a good way to get the plant out there.
- **Crimson Night** - a very dark and shiny fruit – too dark for commercial wholesale growers. Some growers that have specialty markets may be interested though as it has excellent flavor. It had been propagated for commercial testers and had done VERY well, but the color was a problem. It is a smaller plant – part of that due to time of flower set.
- **Double Gold** – primocane raspberry that can be double cropped – very vigorous, lots of canes, fills in plot well outside but may be a bit too robust for tunnel culture. Very flavorful. Commercial testers don't like it because it's too soft. It has excellent U-pick potential. VERY disease resistant– resistant to Phytophthora and leaf spot. North American Plants are the propagators.
- **Crimson Giant** – released last fall, very late season primocane variety – useful in tunnels. Need to keep tunnels warm enough to keep them ripening. At the end of October – only 60% of fruit was harvested – still so much on plant. Very large fruited berry. 7-9 gram range in beginning of season, 4.5-5 grams average over the season – very flavorful for late in the year. Starts bearing 30 days after Heritage. [http://www.cctec.cornell.edu/plants/CrimsonGiant%20Poster\\_small.pdf](http://www.cctec.cornell.edu/plants/CrimsonGiant%20Poster_small.pdf)



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Agreement with NYSBGA (NYS Berry Growers Assoc.) and Cornell's Technology licensing dept. (CTEC) have set up a process for commercial variety testers within the state of NY (out of state farmers can be members of NYSBGA). This process will allow Courtney to get information from NYS growers. For strawberries, it is a 2000 plant minimum for each farm on at least 10 sites. There is a 100 plant minimum for raspberry trials. Growers will receive score sheets from Courtney. The idea is to allow NYSBGA members to get 1<sup>st</sup> dibs on information about potential new releases and also have them provide direct feedback to breeding program. The program will begin this spring with new SB selection; #0256 mid-late season June bearer. Large berry somewhat round.

### Topics of Discussion

**Strawberry leaves yellowing** –Kevin Schooley's photo from several weeks ago. The berries have completely grown out of it.

**Concerns about Chateau or Prowl** causing interveinal chlorosis. Kathy Demchak sent photos. Other participants have heard of growers concerns re: these herbicides, but reports tend to be more focused on possible loss of vigor and temporary slowing in growth. In this case, the plants were grown on raised bed plasticulture. The grower used a between row application. Most of the injury seemed to be on lower row of raised beds (beds were planted on a slope). For more discussion on this topic, please join us next week as Dr. Rich Bonanno of UMass will be joining us for the berry call.



Has anyone else seen problems with something **eating the achenes off of almost ripe fruit**? Ground beetles can do this, but usually have some damage to the fruit. This pest removes achene and leaves hull on the plastic. The only photo of the damage inflicted by the strawberry ground beetle (*Harpalus rufipes*) was in an on-line version of *Pests of Fruit Crops, A Color Handbook*, by David Alford. That photo was of an unripe berry with patches of seeds eaten away. According to the description, this beetle is common in weedy situations and is an important ground beetle pest in Europe. The eggs are laid in weedy soil from July to late September. The larvae then feed from August to the following July, passing through three instars and pupating in the soil. Ground beetle larvae are mostly carnivores, except for those of *H. rufipes* which are seed feeders. The larvae do not damage strawberries however as they feed on weed seeds distributed in the soil.

They are especially fond of *Chenopodium album* and *Lolium perenne*. The adults move into the strawberry planting during the fruiting period where they are most numerous from green fruit until after harvest. Adults will remove the seeds from strawberry fields. If the cultivar of berry happens to have deeply set seeds the feeding will result in damage to the surrounding flesh. The beetles usually eat the endosperm and reject the husks, which are then left on the soil surface. The author states that seed beetle damage is often confused with that of linnets, which eat the seeds in the same fashion – leaving the husks – but they rarely do damage to the fruit surface.

A **linnet is a house finch**, *Carpodacus mexicanus*. According to [Proceedings of the 1st Vertebrate Pest Conference \(1962\)](#) linnets attack the ripening fruit of the apricot, cherry, peach, pear, nectarine, plum, prune, avocado, grape, apple, fig, **strawberry**, blackberry, raspberry and many others. They disbud almond, apricot, pear, peach, plum, prune and nectarine. They also attack milo maize, sunflower, lettuce seed, broccoli seed, flax seed, miscellaneous vegetable and flower seeds, ornamental fruits and berries and tomato plantlets. There is provision made under Title 50 for the control of depredating migratory birds. Most of the work in states other than California must be done under permit from the United States Fish and Wildlife Service; however, blackbirds, cow birds and grackles are exempted subject to provisions of State law.



**ProGibb, a gibberellic acid formulation**, has been occasionally recommended for use in fields with frost problems. The ONLY time this is recommended is when the entire field has been equally affected. Marvin mentioned a discussion with Gary Pavlis, Rutgers, and after contacting him for additional info, this was his response:

*We have always considered its (gibberellic acid - GA or ProGibb) use a last ditch effort. If applied too early, it will set fruit that may have set naturally. As a result the fruit is later and smaller because once the GA 'sets' the fruit, natural set cannot happen. Will GA be a benefit with frosted flowers? The answer lies in the damage sustained. If only the corollas are damaged, I wouldn't use the GA. If the pistils are shot, then there is no chance of natural set and GA is the best way to go. Problem is it is never a 100% corolla or 100% pistil situation. The decision must be made on a site to site basis.*

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The direct market plantings typical of northeastern blueberry plantations are generally smaller acreage, with many different varieties and a customer expectation of large fruit. GA applications invariably promote parthenocarpic fruit development, but the berry size will be VERY small – BB size. This is not what most of the U-Pick customers are looking for. For more information on using this product in large plantings, check out this recent blog entry from Michigan State:

[http://msue.anr.msu.edu/news/climate\\_change\\_impacts\\_michigan\\_blueberry\\_industry/](http://msue.anr.msu.edu/news/climate_change_impacts_michigan_blueberry_industry/)

This brings up another problem – **how do we know if pistils are damaged?** When dissected, some definitely look black and therefore dead – but some seem fine and others are confusing as part of the pistil appears green and healthy and the other part looks as though it is senescing – perhaps from good pollination? Are there varietal differences? Gary Pavlis weighed in on this discussion - It is very hard to tell if the flower has been successfully pollinated until the berry starts to swell. If there has been no frost damage, a good rule of thumb is that when the corolla just drops off when you touch the flower it means that berry has been pollinated. With frost damage to the corollas it's trickier. Gary suggested looking at the pistil – if it's damaged at the center of the pistil – or to the center of the pistil – there is a good chance that is frost damage and not natural senescence from pollination. He also suggested that having spent decades looking at frost damage that he thought would result in a total loss – and then having the crop come out at 40% or better – he is convinced the plant has some compensation ability in sizing up the secondary berries. Or perhaps the grower is just paying even closer attention to management.

**Red Admiral (*Vanessa Atlanta*) butterflies** everywhere! Apparently they are in a large migration and have been seen pretty much everywhere – especially favoring fruit crops as that is what is in bloom. Larvae are not known crop pests so hopefully will not be an issue.



Above photos sent by Sandy Menasha of CCE Suffolk County, LI. The purplish/bronze discoloration is believed to be a response to cold due to increased anthocyanins in the leaf. It is not believed to be nutritional or pathogenic and should go away with warmer weather.