

Weekly Berry Call – May 22, 2012

Participants: Cathy Heidenreich (Cornell, Geneva), Molly Shaw (CCE, southern tier, NY), Frank Caruso (UMass, Cape Cod), Heather Faubert (URI, Rhode Island), David Handley (UMaine), Laura McDermott (CCE, Eastern NY/Upper Hudson/Lower Adirondack), Dale Ila Riggs (Stephentown, Eastern NY), Pam Fisher (OMAFRA, Ontario, Canada), Kevin Schooley (NASGA, Ontario, Canada), Mary Conklin (UConn, Storrs, CT), Greg Loeb (Cornell/Geneva).

Growing degree day summaries: (courtesy Scaffolds Fruit Journal, Vol. 21, No. 11, May 21st)

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

Week ending May 7, 2012:	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1–5/21/12):	735	417
(Geneva 1/1–5/21/2011):	493	254
(Geneva "Normal"):	531	282
(Geneva 1/1–5/28 predicted):	926	558
(Highland 1/1–5/21/12):	894	493
(Highland 1/1–5/21/11):	610	317

NY NASS WEATHER, Week ending May 21, 2012

WEATHER: Low pressure brought widespread rain to the southeast half of the state Monday and Tuesday. The only other day with precipitation was Wednesday which was in the form of scattered showers and thunderstorms. Overall for the week, one to one and a half inches of rain fell over the southeast half of the state with zero to a third of an inch of rain across the northwest half of the state. Temperatures averaged normal to above normal during the week.

FRUIT: Apples were 97 percent petal fall. Peaches were 85 percent petal fall. Pears were 94 percent petal fall. Sweet cherries were 96 percent petal fall. Tart cherries were 95 percent petal fall. The following comments are from our reporters throughout the state: In Ontario County, fruit tree growers reported major losses in stone fruits and apples. Grape growers had either significant damage or limited damage, as it appeared to be area specific due to the frost events. In Cayuga and Onondaga Counties, the sweet cherry crop was predicted to have a 90 percent loss. Certain varieties of apples appeared to have suffered more than 50 percent loss and peaches an 80 percent loss. In Long Island vineyards, shoot growth accelerated with the warmer weather. Growers were disbudding trunks and shoot thinning.

Reports from the Field

Ontario – Quite dry with a few frosts last week. June bearing strawberries have been trickling along for about a week but the day neutrals have been going longer and stronger. Leaf spot has been reported in many fields but little tarnished plant bug. Blueberries are at full bloom to petal fall; Raspberries are at bloom. Click beetle seems to be the biggest pest on strawberries. <http://www.dem.ri.gov/programs/bnatres/agricult/pdf/exoticwireworms.pdf>

Geneva – calm, rather dry, strawberries are in bloom to green fruit SB ; ribes have green fruit – a very good crop. American elderberries in bloom, European just coming in bud. There was a frost event last week in many areas. Not too many pest problems.

NY Southern Tier – Blueberries are at full green fruit as are strawberries. Scouting for cranberry fruit worm eggs – have not caught many adults in traps.

Quebec – vigor in strawberries improving a great deal. Rain has helped to alleviate soil dryness. Full bloom in early strawberries, blueberries in full bloom, Raspberries look average – although there are lots of buds in Prelude – Primocanes of fall bearing varieties are finally getting going. Strawberry clipper is creating problems in strawberries and raspberries. TPB in 1st and 2nd instar.

Eastern NY, Mass border – Strawberries have full bloom to thimble size fruit. Have applied gray mold spray, but have seen no TPB yet. Buds for summer crop of fall raspberries visible but not open. Blueberries are in full bloom – still looks like they might be ok despite frosts. A few frosts this week that were controlled by row cover. It got very hot over the weekend upper 80's.

Rhode Island – not too much, Fruit Leucanium scale has inundated some plantings and is all over the woodlands. So much honeydew you can feel it in the woods.

Connecticut - Rain yesterday and today. Strawberries are ripening in tunnels, RB Prelude is in bloom, lots of green fruit, not much frost damage.

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Cape Cod– cranberries are in full bloom which is normally expected in early June so instead of being a month ahead they are only 2 weeks ahead of schedule. Cranberry growers irrigated for frost protection for more than 25 nights this season. Finally got rain 2 weeks ago so water supply worries are less of a concern and the plants look fabulous. Blueberries have been nailed by winter moth in those plantings that did not spray. Winter moth larvae are very good size now, so they will be much more difficult to control at this stage – especially with organic products. Sycamores got clobbered by anthracnose so it seems like blueberry diseases might be lurking. Blueberries are nearing the end of bloom. Growers in frost and freeze cold pockets have lost fruit.

Maine – Strawberries are ranging from full bloom to green fruit to harvest on plastic. Some clipper injury, feeding damage mostly on blossoms. Maine has NOT been short on water – now we need some sun! Still the weather is 5-7days ahead of normal. Unthrifty growth possibly caused by white garden grubs. Asiatic garden beetle is a huge issue on lawns. Raspberries just coming into flower bud now – winter injury is more than anticipated. Blueberries are in full bloom, and the bees are active when it's sunny. Still trying to determine amount of loss from freeze events. Mummyberry shoot strikes have not been that prevalent. Elderberries show quite a bit of winter injury, flower buds are just becoming evident.

Topics of Discussion:

Switch vs. Pristine for Botrytis? – For botrytis control on strawberries, one strategy is to use Elevate as first spray of the season, but then what is the best to follow with? Switch is excellent botrytis-cide, but does not provide much protection from leaf spot and Powdery Mildew. Pristine will fill the gap for those diseases. If you use Switch make sure to add Captan so that you can get some protection from the other diseases. Switch does have great kickback activity.

Scale - European Fruit Lecanium scale – understory in RI had honeydew dripping and lots of sooty mold. It's common to see edge effects in blueberry fields where scale is a problem in borderlands. When identifying scale, take a look at shape of cap. Lecanium scale is rather bulbous, puffy and tortoise shaped and is currently laying eggs underneath the cap. Watching nits develop - they are becoming adults now. Flatter scale doesn't give off as much honeydew. Azalea scale is also puffy – resulting in lots of sooty mold blackness. Control is more of a timing issue – not as much of a material issue. Oil spray early, but other things will work on crawlers. There is some additional information on scale in the April 2nd Berry Call summary if folks need it. Nice photos of Lecanium scale on this web page: <http://www.berriesnw.com/BerryDisordersDetail.asp?id=106>.

Cranberry and Cherry Fruitworm - Traps are out for cranberry and cherry fruit worm but wondering if anyone else has caught adults. They seem to be in very short number. After the berry call Molly reported that she was able to find eggs on fruit, but still no adults in trap. Conversation during call was about the age of the lures – perhaps they were old? Some evidence that this might be the case. Michigan State has a great site that evaluates control options for these two pests and also has links to the fact sheets about them: http://msue.anr.msu.edu/news/control_options_for_fruitworms_in_blueberries/.

Flower stalk height on strawberries – Some growers note that flower stalk on strawberries is much higher than the height of the foliage. Is this normal? Discussion about whether early season N may push foliage in some plantings to be more vigorous. This is not necessarily the recommendation; David suggested that if it's done at all that N should be less than 15#/acre as this strategy could increase disease and mite problems.

White Grubs in strawberries – Different species of white grubs have been causing problems in Ontario last year (June beetle there) and Maine this year (Asiatic garden beetle). The following description and photo are from David Handley's blog (<http://umaine.edu/highmoor/blog/2012/05/16/strawberry-ipm-newsletter-no-1-may-16-2012/>)

- **White Grubs:** Weak growth noted in several fields this spring appears to be the result of white grubs feeding on the roots of newer plantings. These grubs are the larvae of beetles, most likely European chafer or Asiatic garden beetle. They differ from the larvae of black vine weevil and strawberry root weevil in that they have legs and a swollen anterior (rear end), and they tend to be larger. Their feeding weakens the plants by reducing the number of roots. The grubs can be found by pulling up weak plants and sifting through the soil that surrounded the roots. Controlling white grubs once they have become established in a field can be difficult. These tend to be more of a problem in new fields that have been planted following a grass rotation crop, because the



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adults prefer to lay their eggs in sod. Admire® insecticide is labeled for control of white grubs. It should be applied within two hours of irrigation or rainfall to be sure it gets into the root zone. It requires a 14 day to harvest interval.

Amendment to last weeks' call summary: The strawberries with the possible herbicide injury were all Chandler.

Root Problems in Strawberries

(Editor's note: this article was included in our Weekly Update as a result of the Berry Call conversation. I need to dig up a lot more plants to try and determine if there is one particular pest out there – my fear is that we have a little bit of everything going on! Laura McD)

This year strawberry plantings have looked particularly weak after going through the winter. Perhaps this should be expected as the lack of winter snow cover left plants vulnerable to winter desiccation and cold injury. The hot dry spring also stressed plants followed by lots of cold weather to hold them back, so the fact that they are finally hitting their growth stride is quite amazing. Some plantings however are not rebounding even with the plentiful moisture and occasional nitrogen application. These plants remain unthrifty looking, and some are even wilting. If you dig them up, look at the roots and try to determine if there is root feeding. Keep your eyes open for white grubs as these have been reported to be a problem in strawberry fields this year from Ontario to Maine. Similar plant symptoms can be the result of root weevil, and Verticillium wilt, so a root examination is important.

White grubs are immature scarab beetles and are traditional turf pests. Japanese beetle, Asiatic beetle, European chafers and June beetles make up the white grub complex that can infest strawberry plantings. All of these beetles are largish, hard-shelled beetles which fly at night and are seldom seen on plants, but their C-shaped larvae are found in the soil and these grubs are what do the most damage. The adult beetles actively lay eggs beginning in late May through August (egg laying period depends on the species). The eggs are laid in grassy places where they hatch into larvae (white grubs) and feed on roots. Most species larvae feed in late summer and then again in the spring until the adults emerge, but June beetle larvae remain in the soil for three seasons where they feed continually on plant roots.

To control white grubs, do not follow sod or pasture crops with strawberry plantings. Use a cover crop for at least one season to break the cycle. Sites that have light soil and are surrounded by grassy parking areas may experience the heaviest pressure. Admire-Pro can be used to control white grubs.

Verticillium Wilt is a soil borne fungal disease that like white grubs is most devastating to plants in their first year of growth. Outer leaves turn brown and eventually collapse, but inner leaves will remain green until the bitter end. The affected plants typically appear throughout the planting in a random fashion. Many weeds are host of Verticillium including nightshade, groundcherry, redroot pigweed, lambsquarters and horsenettle making weed control critical to Verticillium management. Actinovate AG can be used as a preventative soil drench, but fumigation is the only sure way to eradicate Verticillium. Resistant varieties include Earliglow, Guardian, Allstar, Tribute and Tristar.

Root weevils including the strawberry root weevil, the black vine weevil and the rough strawberry root weevil all attack the roots or crowns of plants while in the grub stage. The larvae cause serious damage by tunneling in the roots and crowns in the spring of the year. Injured plants appear stunted; the leaves are closely bunched and are dark and blue-green. The fine roots have been destroyed, and sometimes even the hard fibrous roots have been eaten. Heavily damaged areas in the field can be large and circular, because of the beetles' behavior of gathering in groups. Newly transplanted strawberries are particularly susceptible to black vine weevils. There are no resistant cultivars known. If root weevils exist, rotation away from infested area for at least 1 year will help. Setting up barriers might also be effective this limits the movement of the adult. Parasitic nematodes have been shown to be effective. Brigade is the only insecticide labeled in NYS for the control of root weevil. This should be applied at a rate of 8-32 oz/A in mid-late June.