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Eastern NY Commercial Horticulture Program

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Berry News

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Berry Crop Update

June bearing strawberry regrowth looks mostly pretty good, but growers need to make sure plants are getting watered periodically. Some locations south of Albany are extremely dry – regrowth and overwintering will be poor unless these plants start to get some moisture soon.

Dayneutral varieties have finally begun to yield in earnest. Interestingly I've seen several overwintered plantings that look far superior than the new plantings of DN.

Annual Chandler fields should be planted by Labor Day. The later you wait, the less established they will be and the poorer they will winter and perform next spring.

Strawberries like to be fertilized now – read the short article on fall fertility for more information on that. Additionally make sure you know what and where your problem weeds are so you can sort out your weed control and also make sure you can get your hands on some weed-free straw for winter mulching.

Blueberry harvest is all but done in most areas. It was an excellent season despite a small amount of loss at the end of the season due to SWD. If anything else, this year shows how important May and June moisture is to blueberries. Remind yourself next season when you need to turn on the irrigation instead of waiting for the skies to deliver.

Fall raspberry and blackberry harvest is fully under way. Spotted wing drosophila (SWD) has been found in all areas of eastern NY at this time and in all berry crops. Populations caught in traps exploded in the Hudson Valley about 2 weeks ago, and did the same this week in the Capital District. If you have SWD infestation, you will need to strip fruit and re-spray with a tighter interval. Do not leave fruit on the ground as this will only add to your problem. Make sure that harvested fruit is refrigerated immediately and keep it refrigerated while on display. *-LGM*

Autumn Berry Nutrient Demands

Many of you will be looking at the results of your foliar samples and determining what is needed for your berries this fall. No nitrogen should be added to any berry crops at this time unless specifically noted in your foliar test results. Your foliar nutrient results will most likely address other macro and micro nutrient needs besides nitrogen. The only exception to this is strawberries.

June-bearing strawberries should have had 70# of N/acre (in the form of calcium nitrate or ammonium nitrate) applied at renovation, and by mid-September they need 30# of N/acre with adjustments to the rate based on the results of your soil test. Watering the N in will do a lot to help berries as it's been very dry. Don't wait too long, the earlier you can get that N on the better.

Day-Neutral strawberries will need continued feeding through trickle irrigation right through the middle of October. You should be applying 60-150# of N during the production cycle, and from my experience the higher side of that recommendation really seems to pay off in yield. These plants are just hitting their stride right now in terms of production, so don't get distracted from feeding them.

If you have not done a foliar analysis, but do have a recent soil test, go back and look at the soil levels for Boron and Magnesium. Those 2 elements are frequently deficient in NYS soils. Magnesium is especially important in blueberry plantings, so if you have a deficient situation, the typical amount to apply is 50-200lb/acre of magnesium sulfate (20% g). If you are doing this without foliar sample results, err on the conservative side and add just 50lb/acre.

If your soil sample shows low Boron, and you haven't added any for the year, you can add this at a rate not to exceed more than 2 lbs of actual boron in any one year. This will mean no more than 10 lb/acre of Solubor this year. Solubor and Magnesium should be applied ASAP. *-LGM*

Northern New York Research Project Looks to Control Strawberry Pests Using Beneficial Nematodes

Strawberry root weevil, *Otiorhynchus ovatus* (SRW) and Black vine weevil, *O. sulcatus* (BVW) attack roots of high value horticulture crops and ornamental plantings, causing plant death. These two insects are closely related to alfalfa snout beetle, *O. ligustici* (ASB) and are susceptible to biocontrol nematodes utilized to control alfalfa snout beetle across NNY. The differences between SRW, BVW and ASB are length of lifecycle and host plant range. SRW and BVW have an annual lifecycle and their host range is very broad, including many of the berry crops and ornamental plants used in the horticulture arena. In contrast, ASB has a 2-year lifecycle and its host range is focused on fleshy rooted plants like alfalfa, clover and wild carrot.

Larvae from all three species are very susceptible to attack from the same biocontrol nematode species. Biological control strategies effective on ASB, developed during the past 20 years, should also be effective for SRW and BVW control.

On Thursday, September 5th from 1-3:00 pm at Rulf's Orchard in Peru, NY, Dr. Elson Shields, Professor of Entomology and Tony Testa, Research Support Specialist, will discuss root weevil pests of strawberry and the potential use of biocontrol nematodes. Research for 20 years on rearing native populations for control of alfalfa snout beetle have proven successful in Northern NY, with populations of the beneficial nematode persisting for 6 or more years, even through 2 years of corn rotation.

The project being started this year will involve rearing and applying these same nematodes to 10 acres of strawberries infested with black vine weevil and strawberry root weevil.

The program on September 5th will review the successes with alfalfa and explain how it can work with a new crop, strawberries. Dr. Shields has had success using these nematodes to control root weevils in a large cranberry planting in northern NY over the past 2 years. *-ADI*

Calendar of Events

September 5, 2013 – Management of Strawberry Weevils, 1-3pm, Rulf's Orchard, Peru, NY. Call Amy Ivy for more info.

September 10, 2013 - Visit On-Farm Research Trials to learn Innovative Management Techniques for Spotted Wing Drosophila – see flyer in this newsletter for details.

December 17-19, 2013 – New England Vegetable & Fruit Conference. Radisson Hotel, 700 Elm St., Manchester NH. Registration is not available yet, but mark your calendars and look for more information soon.

January 21-13, 2014 – Empire State Producers EXPO, Syracuse, NY. More details soon.

January 24-26, 2014 – NOFA-NY Annual Winter Conference, Saratoga Springs, NY. More details soon.

February 13, 2014 – Hudson Valley Berry Meeting, Kingston. More details soon.

Brown Marmorated Stink Bug (BMSB) Update

Hudson Valley Lab Entomologist Peter Jentsch reported that trap catches of BMSB increased dramatically the week of August 9 along orchard perimeters in Orange, Ulster, Dutchess and Columbia Counties. We have had outside reports of BMSB being seen in an apple and peach orchard and in raspberry plantings in Ulster and in apple block in Dutchess County. It would appear 1st generation adults began to move into tree fruit at a few sites and in low numbers in by mid-August.

At the same time, symptoms of fruit damage was found in a few orchards, including damage to apples in Columbia County and damage to peaches and Asian pears in Dutchess County (see photos below). Peaches and early apples may be very susceptible at this time.

Additionally, BMSB have been found in tomato and pepper fields including hot peppers – which strangely enough they seem to prefer!

Conversely, the very first adult BMSB was found in a trap in southern Rensselaer county the week of August 19. At this writing no other adults have been found in traps north of Columbia County.

Since this insect causes the greatest damage along the perimeter of orchards, we suggest growers in the region should be scouting orchard perimeters along wooded edges and hedgerows. Pay special attention to higher elevations, droughty sites and where "Tree of Heaven" (*Ailanthus altissima*) is locally found. BMSB may also be more abundant in the upper canopy of the orchard, so consider climbing or use a ladder for improved scouting.

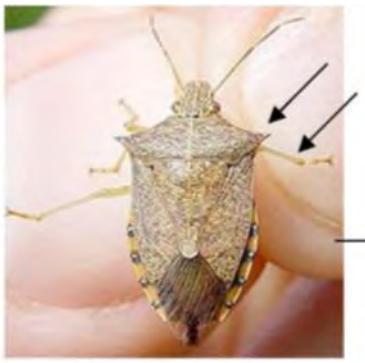
As winter approaches we may see a sharp increase in feeding on fall crops by adult BMSB's working on energy reserves to overwinter. In 2010, growers in NJ, VA, and MD suffered extensive late season damage just prior to the apple harvest. Estimated losses in apple last year reached an estimated $37 million dollars in the mid-Atlantic region.

Keep scouting your fields, and if you think you are seeing BMSB feeding in your crops, try to capture a few insects and call the local ENYCHP educator or send samples directly to Peter Jentsch at the Hudson Valley Laboratory, Department of Entomology, PO Box 727, Highland, NY 12528 along with a submission form found here: http://hudsonvf.cce.cornell.edu/bmsb1.html. Or, if you have a smartphone, you can send a clear image to pjj5@cornell.edu and he can identify your insect and send you an email response. *-LGM and MJF*

Brown Marmorated Stink Bug.
Courtesy David Shetlar, Ohio State Univ.

BMSB Look-alikes:

When looking for BMSB, be aware of some of the look-alikes that exist in our area. The characteristic that distinguishes them from BMSB is listed under the name of each insect.



Spined Soldier Bug
Pointed shoulders
No leg stripe

Brown stink bug
No leg stripe

Rough Stink Bug
'Teeth' along shoulders

Green Stink Bug
No leg stripe

Squash Bug
No leg stripe

Western conifer seed bug
'leaf footed'

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Visit On-Farm Research Trials to Learn Innovative Management Techniques for Spotted Wing Drosophila

Tuesday, September 10th, 2013

Spotted Wing Drosophila management has been a major statewide research and extension focus during 2013, with 2 of the projects located in the Capital District region in eastern NY. Through efforts by local berry growers, including members of the NYS Berry Growers Association, and supported by NY state and federal funding, these projects are advancing our understanding of this invasive pest. Plan to join growers, extension educators, Cornell University research faculty, industry and government representatives for updates on innovative management techniques for SWD.

Locations	Times
Fixed Sprayer System in a High Tunnel Raspberry Planting *The Berry Patch of Stonewall Hill Farm, 15370 NY Route 22, Stephentown, NY 12168* This NYFVI funded project examines the effectiveness and labor saving attributes of this mode of pest control when faced with a challenging pest like SWD. Owner Dale Ila Riggs has been a leader in the campaign to secure research funding for SWD. The farm also grows blueberries with bird netting and day neutral strawberries in a high tunnel – all for local markets.	2:00 pm-3:30 pm
Travel to 2nd site	3:30 pm-4:00 pm
Exclusion Netting and Mass Trapping to Control SWD in Organic Blueberries *Hay Berry Farm, 1276 Babcock Lake Road, Hoosick Falls, NY 12090* Lawrie Nickerson was awarded a NE SARE Farmer Grant to evaluate netting as a management tool for SWD. She also looked at weed mat and berry quality in the study. The farm features a SMART NET bird net, deer fencing and a portable hand-washing station to meet U-Pick customer	4:00 pm-5:30 pm

Please register by calling Marcie at 518-272-4210 – there is no fee, but it will help us provide the appropriate number of handouts etc. If you get a machine, leave the number attending, your name and a phone number. **This event will happen rain or shine.**

If you have questions, please contact Laura McDermott: 518-791-5038.

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Recommendation for Fall Raspberries Infested with SWD

If SWD populations follow the same pattern as last year, populations may rise very dramatically during the next few weeks – right during the peak raspberry harvest. Regular spraying (3-7 day spray schedule) has reduced infestation to bearable levels, although it has not eliminated the threat.

If you decided to forgo spraying for SWD and are considering mowing primocane raspberries early, STOP!!! There is no evidence that mowing canes early will have an impact on 2014 populations. What we DO know is that mowing those canes now, before the plants move carbohydrates to the crown of the, will have a serious negative impact on the ability of the raspberry plant to overwinter.

Carbohydrates move from the leaves into the crown during the fall, then back up from the crown into the buds in the spring. Removing canes early essentially removes the stored food available to the canes and can result in winter injury or weak canes the next year. Conversely if you wait until the spring – say March – and it turns warm quickly (like this past spring) the carbohydrates will move into the buds and then you remove those canes with the stored food leaving the new canes with no reserve.

The best time to remove canes on fall bearing raspberries is from December to February when most of the carbohydrates are in the crown of the plant. Prune the old canes as close to the ground as possible so that the buds for new canes will break below the soil surface. If you don't do this, the fruiting laterals may form on the remaining cane and could be very low, unproductive and at risk of insect and disease.

Last year some growers topped the raspberries – removing the ripening fruit clusters. Again, there is little evidence that this action will have any impact on the population of this pest next year. As for spraying the abandoned canes, there is no information to indicate that this is a good strategy and may likely be a waste of money and time. This also applies for spraying fruiting plants in hedgerows. Both of these strategies are considered illegal pesticide applications and should not be done. *-LGM*

Weekly and Seasonal Weather Information

	Growing Degree Information Base 50^{O} F			Rainfall Accumulations		
Site	**2013 Weekly Total** 8/21—8/27	**2013 Season Total** 3/1 - 8/27	**2012 Total** 3/1—8/27	**2013 Weekly Rainfall** 8/21—8/27 (inches)	**2013 Season Rainfall** 3/1—8/27 (inches)	**2012 Total Rainfall** 3/1—8/27(inches)
Albany	**147.7**	**2042.0**	**2381.8**	**0.25**	**23.84**	**18.36**
Castleton	**137.3**	**2119.0**	**2562.4**	**1.23**	**22.00**	**17.61**
Chazy	**124.4**	**1882.6**	**2574.7**	**0.61**	**20.45**	**14.30**
Clifton Park	**137.9**	**2048.1**	**2337.3**	**0.37**	**23.00**	**21.18**
Clintondale	**152.3**	**2315.9**	**1939.5**	**1.18**	**NA**	**NA**
Glens Falls	**125.5**	**1786.9**	**2097.5**	**0.25**	**19.05**	**14.41**
Granville	**129.5**	**NA**	**2209.0**	**0.00**	**NA**	**18.76**
Guilderland	**137.5**	**1950.8**	**2179.0**	**0.13**	**6.83**	**6.56**
Highland	**144.8**	**2310.3**	**2525.9**	**1.10**	**21.76**	**23.13**
Lake Placid	**81.5**	**1257.8**	**NA**	**0.67**	**22.27**	**NA**
Montgomery	**143.7**	**2407.9**	**2258.5**	**1.38**	**23.70**	**NA**
Monticello	**100.8**	**1616.5**	**2173.5**	**0.00**	**0.28**	**1.49**