Cornell University Cooperative Extension

Eastern NY Commercial Horticulture Program

Vol. 1, Issue 6
May 23, 2013

Berry News

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Regional Updates:

North Country—Clinton, Essex, northern Warren and Washington counties

Berry phenology: Warmer weather pushed berry development and flowering. Minimal damage from last weeks freeze to most crops, but strawberries accelerated under row cover did see some loss due to low temperatures in the upper 20's for two nights in a row. Some winter injury being noticed on floricanes.

Pest focus— Some strawberry weevil damage on light soils noticed. Control will come later in the season, although beneficial nematodes can be introduced now. Warming temperatures with high humidity require protection from Botrytis infection.

Capital District—Albany, Fulton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, southern Warren and Washington counties

Berry Phenology: Strawberries in full bloom to green fruit in most areas. Approximately 20% freeze loss to strawberries that were in blossom last week. Warming weather with much needed rain have improved look of plantings. Picking to begin in earnest in 2 weeks. Blueberries in full bloom—all varieties. Bloom is quite heavy in most areas—negligible winter injury.

Pest focus— Poor grass control noted by growers that applied Poast during dry season—remember that grass needs to be actively growing—so dry-dormancy may have caused poor response to herbicide.

Mid-Hudson Valley—Columbia, Dutchess, Greene, Orange, Sullivan and Ulster counties

Berry phenology: Some cold areas reporting spotty but significant loss in June bearing strawberries. Many calls regarding day neutral installation. Early blueberries setting fruit in southern locations. Hail reported in Columbia county and elsewhere early in the week. Strawberry harvest will commence next week.

Pest focus— Anthracnose (see more info inside newsletter) leather rot, sap beetle

Nationally, berry consumption is growing with strawberries still at the top, though blueberries, raspberries and blackberries enjoy major success as well.

"Strawberries are still the largest overall berry category, but the continued growth of blueberry and blackberry volumes has led to huge increases in sales dollars nationwide," said Bruce Turner, director of sales and business development for berries at Curry & Co., Brooks, Ore. "Both of these berries are available year round, and consumers expect to find them in the stores year round," Turner said.

Others agree that strawberries remain king, despite the growth of other berry categories.

"All of the berries are loved by consumers, but strawberries do rank highest in household penetration," said Kyla Garnett, marketing manager at Naturipe Farms LLC, Estero, Fla.

Read the rest of the article printed in *The Packer*: http://www.thepacker.com/commodity-fruits/blackberries/Strawberries-lead-as-berry-category-grows-207376181.html

Spotted Wing Drosophila Update

Most growers, especially those with fruit crops in 2012, are familiar with spotted wing Drosophila (SWD) (*Drosophila suzukii*). For those who are unfamiliar with this pest, it is an invasive vinegar fly introduced to the US from Asia. It first appeared in New York State in 2011, with widespread economic injury occurring in 2012. Unlike the common vinegar fly (*Drosophila melanogaster*), which feeds on overripe or rotting fruit, SWD oviposits and feeds on unripe, sound fruit. Because of its short life cycle and the prolific nature of adult females, SWD requires close management and regular pesticide applications to maintain good fruit quality.

Educators throughout NY State, including members of the Eastern New York Horticulture Team and researchers at Cornell are continuing to monitor for this pest. We have more than 70 traps deployed in many different types of berry crops and wild host hedgerows in all 17 counties participating in the program. As of Tuesday, May 21st, there have been no reports of SWD captures in any of the locations. We will use this newsletter as well as email blasts to alert growers of SWD findings as they occur.

If you want to make your own trap, we have included information for how to do that along with some pictures of the traps we are using. Bait recipes are also included. In the next issue we will have information about how to evaluate fruit infestation.

More information on SWD can be found by visiting the NY State IPM Program website at http://nysipm.cornell.edu/invasives_exotics/swd/swd.asp, as well as the Cornell University Fruit Blog at http://blogs.cornell.edu/fruit/. – *JMO and LGM*

The photo on the left shows how the yeast bait is put in a nesting cup inside the drowning bait of cider apple vinegar. You can use both baits in tandem or you can use one or the other. The yeast bait has been found to be more attractive to SWD, but it still does not provide an earlier capture. On the right is a photo of the trap anchored in a strawberry planting.

Spotted Wing Drosophila Traps

Materials for 1 Trap

- 16 oz Plastic Deli Container with lid
- Zip tie to hang container or Stake to anchor container
- Small inner container if using both baits simultaneously
- Red and/or black electrical tape
- Hot glue

Vinegar Bait recipe

- Apple cider vinegar
- drop Unscented dish detergent

Yeast Bait recipe (for 6-8 traps)

- 1½ cups (12 fl oz) warm water
- 4 Tablespoons Sugar
- 1 Tablespoon dry active bread yeast

Instructions

- Drill or melt 6-8 2mm holes around top edge of deli container. Leave a space to pour off vinegar so that you don't smell like a pickle!
- Apply red and/or black electrical tape right next to holes. The fly should orient towards the contrasting color making entry into the trap easier.
- Hot glue smaller container to bottom of deli cup. This will house the yeast lure – but this is optional.

Anthracnose Affecting Strawberries

By Dr. Margaret McGrath, LIREHEC, Cornell

Symptoms of anthracnose were observed on strawberry this week. This disease rarely is observed on LI. The outbreak reflects the fact conditions have been very favorable: combination of high temperature (80 F is optimum), the most important factor, and wet. This is similar to conditions in 2010 when last seen.

Spores of the pathogen are dispersed by splashing water. Humidity near 100% is needed for infection. Spores are produced abundantly and disease development is rapid under favorable conditions, consequently crops can quickly become severely affected. The primary symptom is fruit rot. These start to form on ripening fruit as small, white to light brown, water-soaked spots that typically enlarge quickly, becoming dark brown to black, slightly sunken, and can consume the entire fruit. Green fruit can also develop spots that are very small, being restricted to individual seeds, which turn black. Symptoms also develop on crowns, leaves, flowers, pedicels and peduncles. Infected crown tissue can result in plants wilting and dying. More information and images can be found at: http://www.fruit.cornell.edu/tfabp/strawanthracnose.pdf.

Symptoms are often associated with a specific variety, which is not because of greater susceptibility, but rather reflects the fact the pathogen was present on these plants when purchased. Infected transplants and contaminated soil are the main sources of the pathogen. It can be present without causing symptoms. Indexing is not done for this pathogen. Successfully harvesting from an infested planting can be difficult because symptoms can develop quickly after harvest. As much as 25% of fruit could start to rot in just 1 day!

Unfortunately anthracnose is very difficult to control when conditions are favorable during harvest, especially when management practices were not implemented earlier. The pathogen can survive between seasons in soil or infested plant debris, especially mummified fruit. Starting with anthracnose-free plants is a key management practice. Sweet Charlie is an early variety with resistance. High levels of nitrogen favor anthracnose development, therefore using minimal fertilizer is recommended where the pathogen is established. Minimize pathogen dispersal by using straw mulch, at least between rows, and drip irrigation. Plastic mulch between rows has been shown to increase splash dispersal of the pathogen. The pathogen can also be moved by workers or on equipment, therefore affected fields should be worked in last. Strobilurin fungicides (Abound, Cabrio, Pristine) currently are the most effective option for anthracnose. They can only be applied twice before a different class of fungicide must be used. Switch is the best choice for alternating. Captan, Captevate, and Thiram are good protectant fungicides for early in the season.

Strawberry anthracnose caused by Colletotrichum sp. ***Courtesy J. Pawlak, APSnet.org***

Source: LI Fruit and Vegetable Update, No. 8, May 24, 2012

Increasing Cooler Space for Small and Limited Income Farms

If you are in need of cooler space—be it additional space, cooled transportation or field cooling—consider this program. it's a 50/50 match program with maximum compensation at $3000.

The deadline is June 14, 2013.

For Growers in ENY/Capital District:
Sandy Buxton
518-746-2560
sab22@cornell.edu

For growers in the Hudson Valley:
Maire Ullrich
845-344-1234
mru2@cornell.edu

Crown Gall in Blueberries

Crown gall was mentioned in an article in the last issue of Berry News. It was found in the same planting where blueberry mealybugs were found, a 2 yr old planting of 'Duke' on ground previously planted to greenhouse tomatoes. Soil pH was on high side (approaching 6), so the grower applied sulfur to push pH back closer to 5.0, which is what blueberries like and the Crown Gall pathogen does NOT like. According to Dr. Peter Oudemans, Rutgers University, there is a fair amount of crown gall in NJ and often appears on 'Duke'. Affected plants are often limited to certain farms and it is not widespread, however there are a few plantings where many plants are infected. The symptoms tend to be pretty severe on individual plants. Usually by the time symptoms express, the plant is on its way out. So removal of plants is the 1st priority. Generally the fields with symptomatic plants are on the high side >5 and the fields were often planted to another crop such as sweet potatoes or another vegetable before blueberries. So reducing pH and being aware of field history are other priority areas.

The Cornell Guidelines also mentions the use of Agrobacterium radiobacter strain K84 that could possibly be used as a preventative root dip to plants before planting in infested soils.

Crown Gall is caused by *Rhizobium radiobacter* (formerly *Agrobacterium tumefaciens*). This pathogen is different than the one that causes Crown Gall on grapes. Oregon State University Diagnostic Lab can do a PCR screening for an affordable fee of $60. http://plant-clinic.bpp.oregonstate.edu/. For more information, visit http://pnwhandbooks.org/plantdisease/blueberry-vaccinium-corymbosum-crown-gall. (Photo at left is from that website) *-LGM Source: Weekly Berry Call Summary, May 7, 2013*

Strawberry Scouting Report

Day-neutral strawberries grown in high tunnels have been harvested for about 1 week and a half. Chandler on plastic will be ready in many areas this week. Given all the phone calls, there is a good deal of acreage being planted to early strawberries – perhaps to avoid SWD pressure.

June strawberry picking will begin in southernmost regions during the next week and the entire region should be in the midst of harvest within two weeks, perhaps three weeks for most northerly locations. For the most part fruit set look good. We saw about 20% injury in certain areas where temperatures last week were just at the perfect stage to kill berries – in some cases anthers are fine, but berries are dead! Early berries may see the lowest yield volume due to this frost injury.

So far, not much slug activity, but that is always a potential problem, so Sluggo or Deadline Bullets may be in order. Bird damage will increase as fruit colors. Many growers with smaller fields are netting the patches to control bird damage.

I have not seen much tarnished plant bug or strawberry clipper activity so that's a positive – but each grower should be monitoring for those pests.

Botrytis grey mold could be a problem especially given the recent warm wet weather trend. Calyx infections are evident in a small number of green fruit, but protection now would help a great deal.

Because it's early, I have not seen anthracnose in berries yet this year, but this disease has been increasingly problematic for growers in Long Island and eastern NY. The article below was written by meg McGrath last year, but I think it's worth revisiting because we saw a great deal of anthracnose in the Capital District last year and growers should be on the lookout. *-LRM*

Farm Service Agency Loans

Written by Anita Deming, CCE Essex County, Farm Business Management

This information is from a NE Beginning Farmer Project webinar delivered by Carrie Novak carrie.novak@wdc.usda.gov from the USDA Farm Service Agency (FSA).

There are a few principles that apply to all FSA loans. First and foremost you must be unable to get credit from a regular bank. The FSA cannot compete with private business, so if you have a lot of earning power and/or assets, you will not be eligible for an FSA loan. They may ask for a letter of denial from another bank.

Secondly, they make loans based on date order of application. They do have priorities for minorities, women, and beginning farmers and ranchers, but they too are addressed in order of application. Right now some of FSA's loans are waiting for funding due to the budget, but they are accepting loans, so you could get in the queue.

These loans almost always take time to work through the system. You should plan ahead. The loan rates vary monthly. I have included the April 2013 rate, but you will need to check the rate at the time you are up for the loan.

You will need to provide a farm analysis at the end of each loan year using Income Statement, Balance Sheet and Yield Reports.

Direct Farm Ownership Loans - These loans are up to $300,000 for a term of 1 to 40 years at 3.5% (April 2013). They are for purchasing farm land or buildings, constructing buildings, or soil and water conservation projects.

Direct Operating Loans - These loans are up to $300,000 for at term of 1 to 7 years at 1.375% (April 2013). They are for operating expenses such as: livestock, poultry, equipment, feed, seed, farm chemicals, supplies, repairs, minor building improvements, refinancing or even for family living expenses.

Direct Emergency Loans - These loans are up to $500,000 for a term of 1 to 40 years at 2.375% (April 2013). They are to restore or replace essential property, or to pay production costs from a disaster. These are usually weather related events, and must be declared by the President or the Secretary of Agriculture. Examples of financed expenses would include family living, farm operating expenses, reorganizing an operation, or refinancing debt to amend the payment schedule.

Direct Farm Ownership Down Payment - These loans are up to $225,000, for a term of 1 to 20 years at 3.5% (April 2013), but you need the first 5% of the down payment. This is for a down payment on a farm purchase.

Guaranteed Farm Ownership Loan - These loans are a guarantee for your current bank and go up to $1,302,000 for a term of 1 to 40 years. This backs up a loan from your regular bank to get their "average" interest rate. The rules for coverage are the same as Direct Farm Ownership. It can be used to refinance real estate debts as well.

Guaranteed Farm Operating Loan - These loans are a guarantee for your current bank and go up to $1,302,000 for a term of 1 to7 years. This backs up a loan from your regular bank to get their "average" interest rate which might be lower than they would lend to a "risky" borrower.

Guaranteed Conservation Loan - These loans are up to $1,302,000 for the term of the collateral (the expected life of the project). This backs up a loan from your regular bank to get their "average" interest rate. It is for conservation practices.

Land Contract Guarantee - These loans are up to $500,000 for a term of 1 to 20 years at a fixed rate of the Direct Farm Ownership rate (3.5% in 2013) plus 3%. The buyer must provide a 5% down payment This Guarantee is to help farm sellers and it covers contract installments, land taxes, insurance, outstanding principle, for seller of family farm to a beginning farmer.

Rural Youth Loans - These loans are for up to $5,000 for a term of 1 to 7 years at 1.375% (April 2013). They are for youth from 10 to 20 years old living in a "Rural" community. They need parental permission and project advisor.

Loan forms are on the web site or from FSA loan officer: www.fsa.usda.gov.

Information about the new Microloan program for beginning farmers will be in the next berry newsletter.

Weekly and Seasonal Weather Information

Site	Growing Degree Information Base 50° F			Rainfall Accumulations		
	2013 Weekly Total 5/16—5/20	2013 Season Total 3/1 - 5/20	2012 Total 3/1—5/20	2013 Weekly Rainfall 5/15—5/20 (inches)	2013 Season Rainfall 3/1—5/20 (inches)	2012 Total Rainfall 3/1—5/20 (inches)
Albany	48.4	229.8	348.5	0.09	5.72	8.83
Castleton	33.5	215.2	357.3	0.03	1.29	8.49
Chazy	36.2	227.2	308.8	0.13	3.56	7.45
Clifton Park	47.1	215.9	321.7	0.09	5.30	9.75
Clintondale	59.5	253.2	284.5	0.18	NA	6.11
Glens Falls	34.4	192.5	241.5	0.10	6.20	7.21
Granville	38.0	NA	276.5	0.15	6.05	10.32
Guilderland	44.0	189.5	318.0	0.01	0.67	5.00
Highland	60.5	269.0	405.0	0.20	3.34	6.00
Lake Placid	9.5	66.1	NA	0.24	4.81	NA
Montgomery	52.1	212.5	363.0	0.19	5.00	NA
Monticello	37.3	148.1	268.0	0.00	0.00	0.71
Redhook	51.5	214.0	364.0	0.06	3.76	5.92

Berry Sprayer Optimization and Calibration Workshops

Proper sprayer calibration and optimization will be a major part of an effective SWD management program. Learn more about sprayers large and small and how you can improve spray distribution, monitor output and improve efficacy, which will be imperative this year.

Learn how to calibrate air blast, boom and small hand-held or backpack sprayers. We'll demonstrate the utility of water sensitive paper and discuss alternate row spraying and nozzle selection. There will be time for questions and discussion.

2 DEC Pesticide Re-certification credits available.

Winney's Farm, 113 Winney Rd., Schuylerville, NY 12871 Tues 5/28/13 2-4pm

Valley View Farm, 228 Route 9N, Ticonderoga, NY 12883 Thurs 5/30/13 10am-12pm

Please let us know you're coming! Call with name, phone number and # attending Jim O'Connell 845-943-9814 or Laura McDermott 518-791-5038.

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