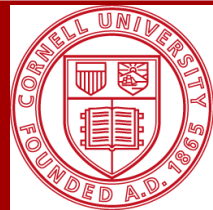




FRUIT NOTES

Lake Ontario Fruit Program



Volume 14 Issue 23

December 9, 2014

Happy Holidays! Wishing you a healthy, prosperous 2015!

2015 LOF Winter Fruit Schools

Feb 2 – Niagara County CCE

Feb 3 – Wayne County TBA

The Lake Ontario Winter Fruit School program is Feb. 2 at CCE Niagara County, Lockport, NY, and Feb 3, at Wayne County location to be determined. We are looking forward to an exciting program. Cornell faculty and industry members will present research-based information on a variety of topics including: precision fruit thinning, new product recommendations for management of fire blight, management of woolly apple aphid and scale insects, phytotoxicity results for tank mixes, black stem borer update, update on DEC inspections and regulations, plum pox update, getting help with H2-A, and more. We are still in the planning stages of the Spanish session we started a few years ago. The full program will be posted soon on our website, <http://lof.cce.cornell.edu/>, and sent in next Fruit Notes after the New Year. DEC credits will be available.

SPOTTED WING DROSOPHILA (SWD) WINTER REGIONAL WORKSHOPS

Growers of Fall Raspberries, Mid-Late Season Blueberries,
& Day-Neutral Strawberries:

*Learn how to manage Spotted Wing Drosophila in an in-depth
workshop near you!*

**Please register by December 10th for the SYRACUSE
workshop on Spotted Wing Drosophila (SWD) to avoid
the \$20 late fee.**

CENTRAL NY:

Wed., Dec. 17, 2014

8:30AM-4PM

Ramada Inn

1305 Buckley Road

Syracuse, NY 13212

EASTERN NY:

Wed., Jan. 14, 2015

8:30AM-4PM

CCE Albany County

24 Martin Road

Voorheesville, NY 12186

WESTERN NY:

Wed., Mar. 4, 2015

8:30AM-4PM

Clarion Hotel

8250 Park Road

Batavia, NY 14020



Cornell University
Cooperative Extension

Lake Ontario Fruit Program
in Wayne, Orleans, Niagara,
Monroe, and Oswego Counties
<http://lof.cce.cornell.edu>

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Building Strong and Vibrant New York Communities

Diversity and Inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

Every effort has been made to provide correct, complete, and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly, and human errors are still possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying any pesticide.

This is the place to learn current SWD information, the most recent research results, and management practices. The 2015 Producers Expo will focus on *other* topics of importance to berry growers.

- Presentations by Cornell Researchers, Extension, and NYSBGA on SWD:
 - Biology
 - Management- including cultural, biological and chemical/technology
 - Early Warning signs and symptoms of infestation
 - Decision making resources
- Hands-on activities, take-home reference binder & “goody bag” of supplies
- CCA credits available!
- 5.5 DEC credits available! – Categories 1A, 10, 22, 23 & 24

WORKSHOP COST: Per Person- Includes Lunch, take-home guide, and supplies...

NYSBGA Members \$25

Non-Members \$50

(Registrations MUST be received 7 days prior; No refunds after deadline; Late Fee: \$20)

Join the NYS Berry Growers Association and SAVE on workshop registration

2015 Membership: \$125 (*Applies to 2 Individuals/Farm; \$50 goes directly to research*)

Associate Membership: \$75 (*Non-profit Ag Professional*)

REGISTER EARLY to reserve your seat, lunch, and take-home goodies...

By Mail: Return attached form with check, payable to NYS Berry Growers Association

Online: <http://www.hort.cornell.edu/grower/nybga/>

Questions?

Contact: Penny Heritage, NYSBGA- Communications (518) 424-8028, pennyh@nycap.rr.com

**Sponsored by: NYS Berry Growers Association, Cornell Cooperative Extension,
Cornell University College of Agriculture and Life Sciences, and NYS IPM Program**

Funding support from: NYS Legislature, and NY Farm Viability Institute

Grower support needed for Kasumin 2L (kasugamycin) registration in NY in 2015.

Arysta LifeScience has finally secured a section 3 label for Kasumin 2L for fire blight management in apple and pear. Kasumin 2L contains the antibiotic kasugamycin, which would greatly improve management of fire blight and restrict antibiotic resistance development in apples and pears. Nearly all registered biological bactericides, copper fungicide, and antibiotics have been tested for fire blight management in Geneva for numerous years, and only kasugamycin in the form of Kasumin 2L has been able to consistently provide a level of control equivalent to that of streptomycin. Having an effective antibiotic alternative to streptomycin in

the form of kasugamycin may also prove to be the means of eliminating streptomycin resistant *E. amylovora* in NY. At the 24 apple production operations in NY with streptomycin resistance, streptomycin resistance strains represent less than 30% of the fire blight population. Continued use of streptomycin in such operations may serve to establish complete streptomycin resistance in such populations. However, being able to rotate with applications of kasugamycin in such orchards could remove remaining streptomycin resistant members in *E. amylovora* populations. In addition to its effectiveness against fire blight, kasugamycin has several other attractive

features. Kasugamycin has no use in human and veterinary medicine, and is solely intended for agricultural uses, which would allay any concerns about the development of antibiotic resistant strains of bacteria capable of causing infection in mammals. Moreover, kasugamycin has a novel mode of action compared to currently registered antibiotics, and it is not cross-resistant with other antibiotics registered for agricultural uses. Finally, kasugamycin meets all of the requirements of the EPA's "reduced-risk" classification in that it has high worker safety, is nearly absent in non-target effects, has low environmental impact, and serves to alleviate over reliance on a single material (i.e. streptomycin).

Currently, Arysta LifeScience is pursuing a NY registration for Kasumin 2L. If NY apple industry

wants to have Kasumin 2L for the 2015 season by bloom, we need to indicate considerable industry support for an expeditious registration in NY. To offer support, send the NYSDEC a letter of mentioning some of the reasons above in addition to all the reasons that you need effective materials like Kasumin 2L for fire blight management on your farm.

All letters should be addressed to:

Jeanine Broughel
NYDEC
Bureau of Pest Management
625 Broadway
Albany, NY 12233-7254

GAPs 2-day Winter Training Courses

Craig Kahlke

Collaboration between National GAPs Program, Cornell Cooperative Extension, NYS Department of Agriculture and Markets, and Produce Safety Alliance will offer 6 workshops state-wide this year.

The 2 that will be held near the LOF region are:

January 12-13, 2015 at NYSAES,
630 West North Street, Geneva, NY 14456
in Room 251 Food Science and Technology Building
Registration cost: TBA
Registration contact: TBA
Organizer: Elizabeth Newbold, CCE of Yates

February 9-10, 2015 in Wyoming Co.

Registration cost: TBA
Registration contact: TBA
Organizer: Robert Hadad, CCE, Cornell Vegetable Program.

See our website and <http://www.gaps.cornell.edu/> for registration info when it becomes available.

The Resurgence of Hard Cider: What to Know Before Jumping on the Hard Cider Bandwagon

(Mario's note: This modified article (the original published by Growing Produce on Nov. 10, 2014) is the second in a two-part series about hard cider. The first focused on the importance of varieties for high quality apple cider, LOF newsletter Vol 14, Issue 21, October 15, 2014).

Before you jump on the hard cider bandwagon, there are a few things to consider. If you're putting a cider variety in the ground, Greg Peck (an assistant professor at the Virginia Polytechnic University) and Ian Merwin (an emeritus Professor at Cornell) offer some advice.

- **Have a Plan and Destination** — Growers seeking to sell apples to hard cider makers should choose varieties that there is a market for and are proven in the region. Growers seeking to add hard cider production should make similar choices and consider the type of hard cider you want to produce and choose apples accordingly. Be careful and cautious about planting varieties that are not well proven in your area. It is important that there is some experience with these varieties before planting them in quantity.
- **Organize Your Blocks** — European hard cider varieties should be organized according to bloom time because about half of the European varieties in the U.S. are late blooming. In order to chemically thin them, you have to plant them according to bloom time. Have a block of the late-blooming ones separate from the rest so you can put those thinning sprays on a couple of weeks later.
- **Be Wary** — Because of the late blooming, your hard cider varieties may be more susceptible to fire blight. Some are more susceptible to apple scab and powdery mildew, too.
- **Be Prepared for Preharvest Fruit Drop** — Keep in mind that most of the European hard cider varieties are bred to drop fruit and fruit size is smaller than fresh market apples. If you are growing these apples in a warmer area, more preharvest drop can be expected. Some growers prefer to

grow larger trees in order to have solid grass in the orchard for hard cider apples. If fruit drops in grass it's going to hold up better than getting in the mud or sitting in the herbicide strip.

- **Be Choosy When Picking Rootstock** — Select rootstocks a little more tolerant to viruses because a lot of the European and antique apple budwood has viruses in it. Professor Merwin uses B. 9 in his orchard and also G.41 and G.935. If you get budwood, most of the available cider budwood is going to come from somebody's orchard, and stuff from orchards may have latent viruses, so you don't want to graft these things on to G.16 or a rootstock that you know has virus sensitivity.
- **Varieties Can Be Vegetative and Biennial** — Peck and Merwin stress that these European varieties can be vegetative and vigorous. Also, if you don't properly and aggressively thin the trees, they can be biennial.

Online Resources for Growers Interested to Grow Hard Cider Apples

Peck worked with Agricultural Economist, Dr. Gordon Groover, and graduate student, Jarrad Farris, to develop a customizable enterprise budget for growing hard cider apples and a partial budget for growing dual-purpose apples. He also worked with Matson Consulting to develop an economic feasibility study for a small-farm cidery. These studies are available for free. You can also visit Virginia Tech's site and Washington State University's site for more hard cider resources.

Pulse of Ag Survey

Chris Watkins, CCE

This survey is to determine what the outlook is from the farmer perspective as you look at 2015 and beyond. Those who complete the survey are eligible to win a \$250 Visa gift card.

Here is the link to the survey: <http://www.surveygizmo.com/s3/1836852/7479b649a3b2>

Food/Beverage Survey of Exports

Thomas Overton, Cornell

New York State's agricultural, food, and beverage industries are world-class, and are increasingly recognized by consumers around the world for safety, quality, and innovation.

In support of those industries, under a program funded by New York's Empire State Development Corporation, Cornell Cooperative Extension is conducting a survey of these businesses' export market experience and potential.

Please spend just a few minutes of your time completing the questionnaire at this link:

https://cornell.qualtrics.com/SE/?SID=SV_6Mdi6plosZdITAF

Your participation will help set priorities for export development for New York State agencies, industry associations, and Cornell Cooperative Extension in the years to come. If you have questions or comments about this survey or about CCE's Export Development Project, please contact Jim Manning, Export Development Project Manager at jpm277@cornell.edu or (315) 272-9529.

Participation by NYS Farmers Market Farmers Requested for Farmers Market Benchmark Project

Laura Baisillo, CCE of Broome County

One of the tools available to farmers to help determine the success of their business relative to other similar businesses is industry benchmarking. These are measures and standards which a business can use to compare its performance with other similar businesses. For example, greenhouse operations may find that an average labor costs are 21% of their gross sales. By comparing their own labor costs against this measure, the greenhouse operator can determine whether his labor costs are in line with the industry and take steps to reduce these costs.

The Farmers Market Federation of NY and Cornell Cooperative Extension of Broome County are conducting a study of farmers markets with funding provided by the NY Farm Viability Institute. Our goal is to acquire enough data on both farmers and markets to develop a set of industry standards or benchmarks. These benchmarks, once defined and published, can be used by farmers to analyze their own businesses. By comparing yourself to industry

standards, you can evaluate your successes against other farmers with similar products, markets, etc. as well as define the areas where you are struggling. Comparisons with industry benchmarks will allow farmers to see their areas of relative weakness and strength and enable them to make critical decisions about how they market their products.

To determine these benchmarks, it is important to survey farmers market vendors to gather data so we can define industry standards. In fact, 500 farmers and producers are needed to provide enough data to ensure accurate results.

Help to support the farmers market industry by completing the Farmers Market Benchmark Project survey with your farm information. The survey is located at <https://www.surveymonkey.com/s/FMFNYBenchmarks>. This survey is open through December 31st, 2014.

The survey will ask for baseline information on your farm, then move on to questions about your market participation. There are questions for each individual market you participate in, up to 5 markets.

While this survey is lengthy, each question is designed to provide data to allow for multiple comparisons against a wide variety of far types, product lines, and markets. It should take you only 10 - 15 minutes for the baseline

information and first market, with an extra 7 - 8 minutes for each additional market.

Thank you in advance for your participation. Watch for the results to be published on our website at www.nyfarmersmarket.com.

For more information or questions, please contact Diane Eggert, deggert@nyfarmersmarket.com or Laura Biasillo, lw257@cornell.edu

2014 Pest Report D. Breth & E. Tee

2014 was a much more normal season for fruit bud development, if there is such a thing as a normal season but later than most recent seasons. We documented green tip on April 15 at early inland sites on McIntosh, and as late as April 21 on McIntosh in orchards close to the Lake Ontario shore with the cool lakeshore breezes. There were 5-7 primary scab infections (several of which were long wetting events) in the region followed by almost weekly secondary infection so any orchards where fungicide resistance, spray coverage, or inability to maintain fungicide protection through the rainy periods suffered continued scab pressure and saw a lot of pinpoint scab at harvest. Wayne County had more than 6 inches of rainfall in August compared to sites west of Rochester with only an inch of rain.

Apple bloom started in Gingergold and Idared in inland sites on May 11 and May 13 on the lakeshore sites. The blossom blight prediction models for fire blight predicted infections in inland sites for May 13-15, then cooler temperatures prevailed lowering the risk. Temperatures warmed along the lakeshore on May 24 and increased the risk of blossom blight on May 27-29 for inland and lake sites. June was a much warmer month and there was plenty of rainfall resulting in 14

days of blossom blight infections for the month of June impacting potentially on many young, newly planted apple orchards and extended bloom on established orchards. Most growers got pretty good control of blossom blight and shoot blight in established orchards, but several new plantings suffered plenty of infection. Shoot blight was difficult to control where fire blight was established with the wet season and temperatures never got high enough to stop the bacteria. Fire blight samples were collected for streptomycin testing and NO STREPTOMYCIN RESISTANT SAMPLES WERE DETECTED IN 2014.

Scale insects are on the rise in stone fruit crops and apples. San Jose scale attack pome and stone fruit. A white scale is also attacking cherries. Many growers learned how to use oil early, and followed up with Lorsban, Esteem or Centaur for control.

Codling moth (CM) and oriental fruit moth (OFM) (internal lep pests) were successful in infesting apples this season. Samples with internal leps from the processor and the harvest evaluation data collected showed a slight increase in damage from these pests in 2014 compared to 2013. There were 102 apple loads with worms detected, but only 21

had 2 or more worms in the sample. This is up a bit from 2013 with only 71 truckloads with larvae detected in apples, with only 90 infested apples from 33 growers. Most of the worms were codling moth, but some oriental fruit moth and European corn borer were found this season.

Other insect pests noted in our harvest evaluations were obliquebanded leafroller (OBLR), European apple sawfly, and apple maggot. Most of the apple maggot damage was the sting of the apple maggot egg-laying, but no brown tunnels from successful fruit flesh infestation by the maggots.

We had good weather for bacterial spot on stone fruit crops including apricots, peaches, nectarines, and plums.

Odd pests:

- Leaf curling midge was seen stunting growth of shoots in new plantings.
- Leopard moth can kill the central leader in new plantings but it typically goes unnoticed until the second year of larval development in the shoots. Leopard moth infested trees show wilted leaders resembling fire blight, but with insect frass (sawdust-like excrement) and a yellow larva with black spots in the pith of the stem.
- Brown marmorated stink bug (BMSB) was trapped in 4 sites in Orleans and Niagara Co: Burt, Appleton, Lyndonville, and Gaines in 2014 starting in May 7 until October 16. Nothing was caught until late September and early October. The total season trap catch was 15 nymphs and 2 adults. Art Agnello also ran traps in Wayne Co. and caught very few,

insignificant populations in high risk sites with truck traffic from the states with higher BMSB population.

- Spotted wing drosophila (SWD) was first detected in mid-July in Niagara county, but most sites had sustained catch by late July. We stopped monitoring traps and recommended insecticides for SWD in berry crops once they were documented in the region.

NEW Pest detected! Ambrosia beetles, black stem borers, have been detected in 27 sites so far in high density tall and super spindle plantings, nurseries and established orchards. It has also been reported in Michigan, NJ, and is an established pest in ornamental nurseries and forestry. *Xylosandrus germanus* was first reported in Long Island in 1932. It is an Asian pest that attacks nursery trees, ornamentals, and, yes, apple. These borers are cited in literature to attack “apparently healthy trees” with ½ to 20 inch diameter trunks ranging from nursery age trees to 15 year old trees. They will also attack injured or stressed trees. The tiny beetle excavates a 1 mm hole in the bark and clears a chamber in the heartwood of the tree, cultures a fungus for a food source for adults and larvae, and lays eggs in the chamber. There are 2 generations per year. They have not been noted in orchards as significant populations until 2013. Art Agnello, Kerik Cox, and Debbie will be launching more research to study this insect and how it behaves in apples, and test possible controls with funding for 2015. Come to the EXPO and hear more about this pest. There will also be an update at winter fruit schools on this pest.

**Lake Ontario Fruit Program
Cornell Cooperative Extension
12690 NYS Rt. 31
Albion, NY 14411**

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***Mark your calendars for Winter Educational
Opportunities and DEC credits:***

Dec. 17, 2014 – Spotted wing drosophila workshop in Syracuse

Jan 12-13, 2015 – GAPS Training at NYSAES Geneva

January 19 – 22, 2015 – Empire State Producers Expo 2015

Feb 2, 2015 – LOF Winter Fruit Schools, Lockport, NY

Feb 3, 2015 – LOF Winter Fruit School, Wayne County, NY

Feb 12, 2015 – Winter Pruning and Orchard Mechanization Tour in Niagara and Orleans Counties.

Feb 21-25, 2015 – 58th Annual IFTA Conference, Halifax, Nova Scotia.

<http://www.ifruittree.org/dnn/default.aspx>

March 4 - Spotted wing drosophila workshop in Batavia.