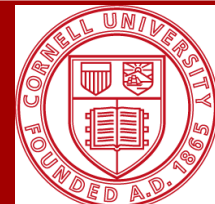




FRUIT NOTES

Lake Ontario Fruit Program



Volume 13 Issue 22

December 12, 2013

2014 Lake Ontario Winter Fruit Schools

DEC recertification training credits. Bring your DEC Applicator ID.

The **Lake Ontario Winter Fruit School** program is Feb. 3 at CCE Niagara County, Lockport, NY, and Feb 4, at Wallington Fire House, Sodus, NY. We are looking forward to an exciting program. Cornell faculty will present research-based information on a variety of topics including: precision fruit production, new recommendations for management of fire blight, scab, mildew, San Jose scale, woolly apple aphid, apple maggot, weed control, planning for big crops in the future, and more. There will also be a concurrent morning session in Spanish. The full program will be posted on our website, <http://www.fruit.cornell.edu/lof/>, and sent in next Fruit Notes after the New Year.

Minimum Wage Increases to \$8.00 on December 31, 2013!

A. De Marree

The NYS minimum wage increases on December 31st of this year and during the next two years. On December 31, 2014 the minimum wage increases to \$8.75 per hour and to \$9.00 per hour on December 31, 2015. More information at:

<https://labor.ny.gov/workerprotection/farm-labor.shtm>

Under tips: Browse A-Z index, then choose M and minimum wage

DEC Credits for 2014 EXPO – Tree Fruit and Berry Sessions Expo program included inside

Date	Session	Credits
Jan 21 - AM	Tree Fruit IPM	1.75
Jan 21 – Mid-day	Precision Thinning – Part 1	1.25
Jan 22 - AM	Honeybees, CCD, and Wild Pollinators	.75
Jan 22 - AM	Berry Session	.25
Jan 22 – Mid-day	Berry Session	.75
Jan 22 – Mid-day	Getting a fast start in SnapDragon and RubyFrost	.75
Jan 22 - PM	Day Neutral Strawberry Intensive	1.25
Jan 23 - AM	Spotted Wing Drosophila	1.75
Jan 23 – Mid-day	Spotted Wing Drosophila	1.75



Cornell University
Cooperative Extension

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in Wayne, Orleans, Niagara,
Monroe, and Oswego Counties
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Building Strong and Vibrant New York Communities

Cornell Cooperative Extension provides equal program and employment opportunities. NYS College of Agriculture and Life Sciences, NYS College of Human Ecology, and NYS College of Veterinary Medicine at Cornell University, Cooperative Extension associations, county governing bodies, and U.S. Department of Agriculture, cooperating.

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.

2013 Pest Report

D. Breth & E. Tee

2013 was a much more normal season for fruit bud development (if there is such a thing as a normal season). There were some extended dry periods longer than 7 days followed by heavy rains during April and May resulting in several scab infections and plenty of weather good for powdery mildew. The combination of fungicide resistance and reducing protectant fungicide use perhaps too early in May resulted in some orchards with scab problems. **Our harvest evaluations showed 1-20% fruit scab.**

Powdery mildew is also a challenge with fungicide resistance where we saw some Idared orchards with serious fruit russet, the netting typical of mildew damage on the skin of the apple. **Disease levels this heavy will impact on yields in the near future.**

Apples started to bloom on May 2 in inland sites and lakeshore sites a couple days later. The blossom blight prediction models for fire blight predicted infections for May 5-6, 8-10, and peaked on May 19-23, and May 30-June 4. These later May infections certainly raised the fire blight risk for all the new plantings established this spring that bloomed profusely. Most growers got pretty good control of blossom blight and shoot blight in established orchards, but **several new plantings suffered plenty of infection**. In 5 sites an average infection rate was approximately 7%, **ranging from 1-79% infection of new trees**. In 4 new plantings of NY2, RubyFrost, growers had an average of 16% of trees infected.

The survey of fire blight for streptomycin resistance this season included over 270 samples from **32 farms in 2013**. **Streptomycin resistance was detected in 8 new sites with a total of 17 sites in western NY and the Finger Lakes**. The good news is that the resistant populations are mixed with susceptible bacteria and were controlled with streptomycin and oxytetracycline tank mixes so far.

Stone fruit crops including apricots, peaches, nectarines, and plums had plenty of bacterial

spot rendering some varieties unsalable. We will try to provide more information on controlling bacterial spot for 2014, including resistant varieties where there are few actual control measures.

Codling moth (CM) and oriental fruit moth (OFM) (internal lep pests) were less successful in infesting apples this season. Samples from the processor with internal leps and the harvest evaluation data collected show an excellent improvement in the pest management in 2013 compared to 2012. There were 71 truckloads in 2013 with larvae detected in apples, with only 90 infested apples from 33 growers. This was a 58% decrease in growers/farms and an 85% decrease in infested loads from 2012. This year, 80% of the loads consisted of only 1 infested apple sample and a maximum of 5 apples in a sample. **In 2013, 88% of worms were CM, 11% were OFM/LAW.**

Other insect pests noted in our harvest evaluations were **obliquebanded leafroller (OBLR)** found in many locations recording **0 – 4.2% for overwintering damage and 0.2 – 18% for summer brood OBLR**. Damage was low from tarnished plant bug (0 - .6%), plum curculio (0 - .4%), European apple sawfly (0 - .8%), and apple maggot (0 – 7%). 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.

San Jose scale is an increasing problem on some farms leaving the red halo spots on fruit of both apples and stone fruit crops. When left uncontrolled, they will build to significant populations encrusting trunks which need special treatment for control. We will include management recommendations in future newsletters.

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 3 towns in Orleans Co: Albion, Lyndonville, and Gaines in 2013 starting May 7 till October 16. First catch trap catch was May 7 and there was nothing caught again until August 21 for Albion and Lyndonville sites. In Gaines, the first trap catch was September 17. The season total trap catch was 22 for Albion, 8 for Gaines, and 34 for Lyndonville. BMSB continues to hold at low populations, but **trap counts increased significantly with bin delivery from areas with high populations of BMSB.** 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 August 14 in Niagara County. By September 24 a season total of 1009 male and female combined had been caught in traps. Monroe and Orleans counties' first trap catch occurred August 19. Fruit was collected and kept for 3 weeks to allow any

fruit flies in fruit to develop and mature. Flies were collected and reviewed for SWD each week. Monroe raspberry site had a total of 76 male and female SWD appeared in fruit starting July 22 through Aug 12. We stopped monitoring traps and recommended insecticides for SWD in berry crops once they were documented in the region.

NEW Pest detected! Shot hole borer or Ambrosia beetles have been detected in 6 sites so far in high density tall and super spindle



plantings, nurseries and established orchards where fire blight has also been detected. Dan Gilrein, Extension Entomologist at Long Island Lab,

identified the species as **“black stem borer”**, *Xylosandrus germanus*, which 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. They will also attack injured or stressed trees. They have not been noted in orchards as significant populations until this season. Art Agnello and Debbie will look into possible controls. The photo shows the tiny beetle excavating tunnels for the eggs and larvae to develop in the wood of the trunk.

An Important Reminder at the Beginning of the Pruning Season

M. Miranda Sazo

Cold hardiness is the ability of a plant to withstand low temperatures. Low temperature injury after a pruning cut can vary depending on when the low temperature occurs (early vs. mid- or late-winter), how fast the temperature drops after the pruning cut, what the temperatures are the few days before and within 10-14 days after the pruning event, and how long the low temperatures are sustained in the orchard. Young trees are more sensitive to cold snaps after pruning than older trees. For those of you who produce fresh fruit we recommend you start

pruning your older trees and the **most resistant cultivars to winter damage** first. The most resistant cultivars like McIntosh should be pruned now leaving the more sensitive cultivars until after Jan. 1. Cutting done at this time (particularly making large chainsaw cuts) can predispose trees to winter injury if temperatures drop rapidly in the next couple of weeks. Hold off all pruning of most sensitive cultivars until trees have time to harden off under more cold weather.

More sensitive apple cultivars to winter damage after a pruning cut	Intermediate susceptibility to winter damage after a pruning cut	Less sensitive apple cultivars to winter damage after a pruning cut
Golden Delicious Red Delicious (more sensitive) Empire (more sensitive) Jonagold Mutsu	Paula Red Cortland Gala Idared Greenings	Honeycrisp McIntosh (all strains)

Farm Food Safety Training: Registration Closing Dec. 13 for Newark, Register Online for the Canandaigua Workshop Now!

C. Kahlke

Cornell Cooperative Extension, the Cornell Vegetable Program, the Cornell Lake Ontario Fruit Team, the Produce Safety Alliance, and the Cornell National GAPs Program, with assistance from NY Ag & Markets, will be presenting a training for farm food safety or GAPs, including Harmonized GAPs. The training is open to all produce farms and related industry people. *This workshop is partially funded through a grant from the Genesee Valley Regional Market Authority.*

Canandaigua (CCE Ontario) Training January 6-7, 2014

Monday, January 6

What is GAPs?

How does GAPs work?

What does it mean for my farming operations?

Tuesday, January 7

Write a food safety plan for your farm*

Optional supplemental session: Mock audit at a participant's farm during the growing season - date & location to be announced to participants

\$60.00 per person registration includes educational materials, lunch and refreshments. Add \$15.00 each for additional attendee from the same farm. Space is limited! **Pre-register by January 2, 2014.**

Mail in with your payment, or register and pay online here:

<http://cvp.cce.cornell.edu/event.php?id=161>

Note: *Although this program is geared towards the USDA Harmonized Food Safety Standards and Audit, the food safety template and curriculum covers most major 3rd-party audit requirements, including the basic USDA GAP/GHP audit, Global Gap, etc.* For questions, please contact Craig Kahlke at 585-735-5448 or cjk37@cornell.edu

** A laptop computer is required for the second day. If you need to borrow a computer, please let us know in advance. If you are not computer savvy, please bring a person with you that has computer knowledge and skills.*

The dates and locations – ALL CONFIRMED – this is it until December 2014. We do not have workshops during the growing season!

December 18 & 19, 2013 – Wayne County, CCE Wayne in Newark –Registration closing- if not pre-registered by Friday, December 13th - contact Craig Kahlke to see if space is still available. Online registration until Dec. 13- <http://cvp.cce.cornell.edu/event.php?id=150> .

January 6 & 7, 2014 – Ontario County, CCE- Ontario in Canandaigua – Registration open – space limited- please pre-register by January 2, 2014. For online registration and info <http://cvp.cce.cornell.edu/event.php?id=161> For updates, see <http://cvp.cce.cornell.edu/> events calendar or a future Fruit Notes newsletter.

February 27 & 28, 2014 – Steuben County, TBA likely in Bath – Registration available online and by mail approximately 4 weeks before the event. For updates, see <http://cvp.cce.cornell.edu/> events calendar or a future Fruit Notes newsletter.
For questions, on any of the above, please contact Craig Kahlke at 585-735-5448 or cjk37@cornell.edu

REGISTRATION -Farm Food Safety Training with GAPs - January 6-7, 2014

8:30 am Registration & Refreshments; 9:00 am - 3:30 pm Training

CCE Ontario County
480 North Main St
Canandaigua, NY 14424

Name: _____ \$ 60.00

Farm/Business Name: _____

Additional Attendee(s) (from the same farm)

_____ \$15.00

_____ \$15.00

TOTAL DUE \$ _____

Address: _____

Phone _____ FAX _____

Email(s) _____

A laptop computer is required on January 7.
Check here if you would like to borrow a laptop _____

Pre-register by Thursday, January 2, 2014. Space is limited!

Make checks payable to: **Cornell Cooperative Extension**

Return registration form and payment to: Cornell Cooperative Extension
Attn: Angela Parr
480 North Main Street
Canandaigua, NY 14424

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

Contents:

- 2014 Lake Ontario Winter Fruit Schools, Feb. 3 and 4
- Minimum Wage Increases to \$8.99 on December 31, 2013
- 2013 Pest Report
- An Important Reminder at the Beginning of the Pruning Season
- Farm Food Safety Training: Registration Closing Dec. 13 for Newark, Register Online for the Canandaigua Workshop Now!

Mark These Dates on Your Calendar Now:

- Dec 18 & 19 **GAP Training:** Wayne Co
- Jan 6-7 **GAP Training:** Ontario County
- Jan. 20 **2014 Becker Forum: Building the Agricultural Workforce of the Future.** Doubletree Hotel, East Syracuse, NY - We recommend registering online ASAP for lower registration costs
- Jan 21-23 **NYS Producers Expo,** OnCenter in Syracuse – see enclosed program
- Feb 3 & 4 **Fruit Schools:** Feb 3-Niagara, Feb 4-Wayne – see website & next newsletter for additional information
- Feb 22–23 **IFTA Cherry Short Course**
- Feb 23-26 **International Fruit Tree Association Annual Meeting,** Kelowna, British Columbia More info: www.ifruittree.org
- Feb 27- Mar 1 **IFTA Post-Conference Tour** – northern Washington Orchards
- Feb 27 - 28 **GAP Training:** Steuben Co.
- Mar 25 **Horticultural Symposium** for Fruit Growers in Geneva – watch Fruit Notes for more information