



The Lake Ontario Fruit Team is Full Again! Introducing Mark Wiltberger: LOFT's new Business Management Specialist



I'd like to take this chance to introduce myself. My name is Mark Wiltberger. I am pleased to have been hired as the CCE Business Management Specialist for the Lake Ontario Fruit Program, starting April 1st.

I grew up in Monroe County, spent time as a government contractor in Information Technology, developed and honed my skills as a grape grower and wine producer, and provided consulting to the New York State wine industry.

I'm excited to join this team, and I look forward to meeting everyone who is associated with the program, and discussing your challenges and opportunities. Please feel free to contact me. Email and phone are being

set up: email: mw883@cornell.edu; mobile phone: 315-272-8530. My office will be at the Wayne County Cooperative Extension location: 1581 Route 88 North, Newark, NY 14513.

Springcasting Is Here!

Original Author: *Blaine Friedlander, Cornell University. Modified by Craig Kahlke*

Adapted from an article in Fruit Growers News, February 6th, 2018.

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Cornell's Emergent Climate Risk Lab has unveiled [Springcasting](#), a web tool to determine the onset of spring—a season before it occurs.

"We're trying to look beyond the typical five- to 10-day barrier of traditional meteorological forecasts by focusing on the timing of spring indicators, not just warm or cold temperatures," said Toby Ault, assistant professor of Earth and Atmospheric Sciences.

"Our Springcasting product tries to predict spring onset a season in advance. The climate is changing, and the onset of spring impacts agriculture, orchards, migrating birds, and insects (including pollinators) — quite literally an entire suite of ecosystem responses. We're trying to get a heads-up a season ahead of what to expect each year," he said.

The new tool's map of the continental U.S. shows in color where spring will be early, late or on time. Updated forecasts were issued Jan. 31st, Feb. 15th, Feb. 28th, and March 15th, with a final one due on March 31st for this spring.



In 2017, spring arrived early throughout most of the Southeast, Southwest and the Midwest. "Spring was crazy last year, more than 20 days early in several places. That took everyone by surprise," Ault said, explaining that he and his colleagues examined models and circumstances from late 2016 onward. "Could we have seen that coming? The answer was pretty much 'yes'. We probably could have predicted the crazy early spring last year, if we had tried."

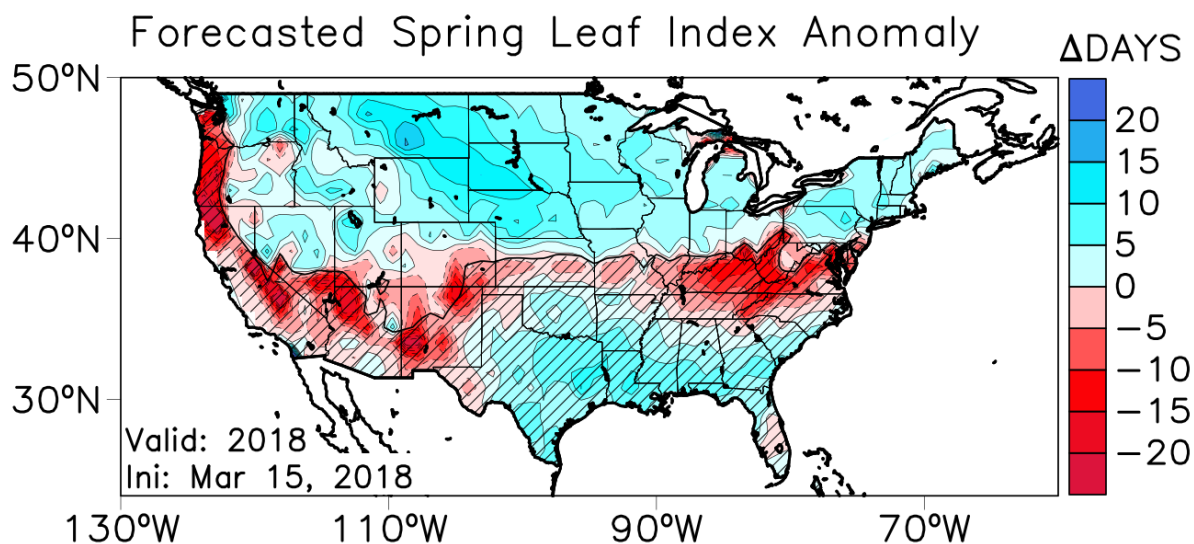
Ault has collaborated with [Mark D. Schwartz](#), professor of geography/climatology at the University of Wisconsin-Milwaukee, [Julio Betancourt](#) of the U.S. Geological Survey, and the [USA National Phenology Network](#) (USA-NPN) to develop and apply quantitative indices of spring onset for North America.

"The continental models are only as accurate as the long-lead temperature data that goes into

them," said Schwartz. "The Springcaster tool not only makes the information more precise, but it puts the data into a form that's easier for users to interpret."

Two years ago, USA-NPN issued index maps to track the start of spring across the continental U.S., using the National Oceanic and Atmospheric Administration's Climate Forecast System. Carlos Carrillo, a postdoctoral researcher in Ault's laboratory, applied additional parameters to the data by using a novel statistical approach that improved early spring predictability.

The scientists found two challenges with the Springcasting tool: communicating uncertainties and issuing forecast updates. Ault is collecting feedback on the site at ecrl@cornell.edu. "To improve the models, we want to hear from people out in the field and on the farms," he said. Please see: <http://ecrl.eas.cornell.edu/node/60>



From Craig Kahlke - If the model is accurate, spring in the Lake Ontario region in Western NY should be at average emergence or a few days later. This would be welcome, as the later we have bud-break in tree fruit, the less risk we have of damaging early frosts.

See also: **Cornell on-line Apple Stage/Freeze Damage Probability Calculator** at:
<http://climatesmartfarming.org/tools/csf-apple-freeze-probability/>

Sudden Apple Decline (SAD)

Tess Grasswitz and Kerik Cox

Introduction

In the summer of 2016, several growers in the apple-producing regions of New York State reported cases of what has been termed Sudden (or Rapid) Apple Decline (SAD/RAD), in which affected trees exhibit yellowing leaves and stunted growth, followed by progressively worsening decline and eventual death.

This syndrome has also been seen in Pennsylvania, Ontario and North Carolina. In all cases, the reported symptoms are very similar, but no causative agent has been identified. Not knowing the underlying cause makes it hard to provide meaningful advice to growers, or to effectively target research efforts. As a first step, therefore, fruit workers in New York and elsewhere initiated grower surveys in 2017 with the aim of identifying any underlying factors common to decline-affected blocks.

New York Grower Survey

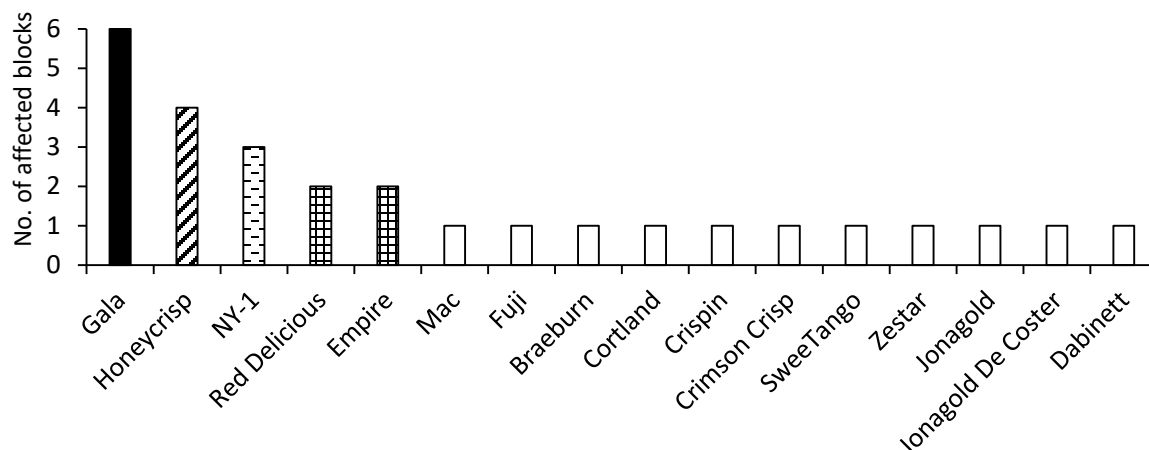
With funding from the New York State Apple Research and Development Program (ARDP), members of Cornell University's Eastern New York Commercial Horticulture Program and Lake Ontario

Fruit Team developed an on-line and mail-in survey that was released to growers in the summer of 2017. Questions included location, acreage and planting history of declining blocks, affected cultivars and rootstocks, planting date(s), symptoms, herbicide use and any past or present history of weather-related problems, diseases and insect pests.

The responses obtained so far from New York growers cover more than 25 declining blocks in 8 different counties. To date, Sudden Apple Decline has been reported in 16 cultivars (**Figure 1**) on 9 different rootstocks (B.9, M.26, M.9, Nic. 29, M.9-337, G.935, B.10, G.16 and G.30). Affected blocks represent various ages and planting dates, but tend to be fairly young when symptoms are first observed.

All survey respondents reported leaf yellowing in declining trees (the only symptom common to all sites), and a high proportion (approx. 70-80%) also reported rough, flaking or splitting bark either above or below the graft union. Discoloration of the bark (typically an orange/tan) was also commonly observed.

Figure 1
Varieties affected by Sudden Apple Decline in New York



Most respondents reported an apparently random distribution of declining trees within affected blocks, with about one-third of growers reporting small clusters of affected trees within rows or, less

commonly, in adjacent rows (approx. 10% of responses). Nearly 50% of growers reported that their declining blocks had suffered winter injury at some point, with just under 40% reporting no winter

injury, and the remaining respondents being uncertain on this point. About half of the affected blocks had irrigation, and half did not.



A wide variety of different herbicides were used by survey respondents, and most growers indicated that root suckers had been present at least some of the time when herbicides were applied. Nevertheless, it is not unusual to see dead trees with apparently healthy root suckers present in declining blocks.

Questions concerning other possible contributing factors (including waterlogging, fireblight, *Phytophthora*, stem borers, etc.) showed no clear or consistent patterns in responses. We have not so far considered soil conditions/soil health (including compaction), root competition, the possible role of viruses and their vectors, or the possibility of pathogen transfer between adjacent trees by natural root grafting. These are all targets for further investigation.

It is possible that Sudden Apple Decline may be similar to honeybee Colony Collapse Disorder, in that it may be the result of a complex combination of stressors rather than a single causative agent. For example, bark damage due to winter injury or herbicide applications might provide entry points for insect pests or various pathogens. Additional environmental pressures such as flooding, prolonged drought, or heavy crop loads may then be enough for affected trees to reach 'tipping point'. At present, however, this remains unclear.

Field observations

Our own field observations are in agreement with grower reports that the initial distribution of declining trees in affected blocks appears to be random, usually with no obvious 'edge effects'. As the decline spreads, however, it is not unusual to find small groups of 3–4 trees consisting of dead, dying and healthy individuals adjacent to each other within a row (**Figure 2**, left).

In general, declining trees appear to set relatively few fruit. However, those that are produced are not aborted but are strongly retained by the tree and persist as small but perfectly formed fruit until the end of the season. There also appear to be some cultivar-specific symptoms, with Honeycrisp (for example) showing a pronounced downward curling of the 'tip half' of the leaves, particularly on branches near the top of the tree. Similarly—at least in 2017—affected NY-1 trees tended to develop a thickening of the leaves towards the end of the season, giving them a 'plastic' or 'leathery' feel; often, the leaves also showed either a red-purple discoloration on the upper surface or darkened blotches on the lower surface. However, it remains to be seen how consistent these symptoms are in the same varieties in different regions and in different years.

Regular monitoring of several declining blocks over the 2017 growing season generally showed both a progressive worsening of trees that were showing symptoms at the start of the monitoring period, and a steady increase in the proportion of new trees showing symptoms. What usually did not increase, however, was the number of dead trees in the block: trees that were unhealthy at the start of the summer gradually worsened, but were usually still alive at the end of the season. It seems likely, however, that these weakened trees will be less able to survive the winter than their more vigorous neighbors. We will be able to assess this once the trees start to leaf-out this spring.

The way ahead: next steps

While we may not be able to pinpoint the definitive cause of SAD/RAD, we need to try to manage the

situation. Can SAD/RAD be prevented in new plantings and can a declining block be saved? Is it cost-effective to try to save an affected block? Strawberry growers contend with a similar complex called black root rot, which shares many of the same putative causal factors. SAD is also similar to the devastation caused by *Armillaria* root rot, which is endemic to the peach industry in the southeastern United States. Producers with plants suffering from these declines were never successful at saving a planting or block to a level where they were satisfied with the results. In these systems, everything was tried, including different rootstocks, raised bed planting, root excavation, and individual tree injection. In many cases, decline was halted, but trees never recovered to a high level of productivity, and the cost-effectiveness of the measures to halt the decline was questionable. Unfortunately, injured trees and trees with rots or cankers will not recover to the level of prior productivity. Whether or not it will be cost-effective to try to save a block with SAD/RAD will greatly depend on the level of decline and the importance of the block to the specific operation.

What are the options?

With decline apparently influenced by multiple (and possibly completely different) causal factors at each location, what is one to do about the SAD/RAD problem? In all cases of plant decline, greater success will be achieved with preventative approaches rather than curative efforts, which are typically less effective since the disease has had a head-start. Also, many of the environmental factors and potential abiotic causes are beyond our control. However, we can work to minimize potential abiotic injury by keeping the trees healthy. Since plant stress is a key component of many cases of SAD/RAD, it will be essential to keep plants healthy and minimize stress. Try to follow the best “safest” practices for growing healthy apples outlined by horticulturalists and physiologists. If blocks make it to year seven, they may escape the problem, as the period of highest susceptibility seems to be within years three to six. Also, since a variety of pests and diseases can be

involved, it will be important to implement tactics that can protect against several potential agents. The following is a list recommendations compiled from advice provided by previous specialists and practices that have been helpful in other decline systems. Adhering to these guidelines won't guarantee success in affected blocks, but at least you will know that you've given your planting the best chance of survival.

Guidelines for managing SAD/RAD

Production

1. Use and manage irrigation needs as defined by the current season's water availability. Implement gradual changes in irrigation practices and avoid "burst" irrigation to deal with drought stress as it could lead to crown infections by wood-decay fungi in trees beginning to experience drought stress.
2. Invest in high quality, large caliper certified trees and spend extra time ensuring recommended planting depths for a healthy planting and to avoid infections near the graft union.
3. Thin, prune, and fertilize appropriately to balance vegetative growth and avoid weak, over-cropped trees.
4. Paint trunks with white latex paint to reduce positional winter injury. Painting may also impede uptake of herbicides by the bark at the crown if there was some slight drift or accidental coverage. (Note: Organic growers should check with their certifying body before implementing this practice).

Pests

1. Manage trunk-boring insects by scouting and following season-specific insect management recommendations.
2. Manage weeds to reduce competition and tree stress, but take care to avoid trunk exposure to herbicides, which may be a considerable factor in SAD/RAD decline. Ensuring herbicide sprayer calibration and shielding is an excellent investment of your time and resources.

Diseases

1. Managing fire blight (particularly shoot blight) should be an essential component of a SAD/RAD management program, especially given the potential devastation of the pathogen to the planting and the potential for dead tissue to lead to opportunistic infections by wood-decay fungi such as *Botryosphaeria*, *Nectria*, or *Schizophyllum*. Wood-decay fungi have been reported in SAD/RAD samples throughout the eastern United States. However, it is hard to determine their role in decline and there is little one can do to manage them other than prevent their infection. When managing shoot blight in a block with (or at risk of getting) SAD/RAD, it might be important to implement a program of Systemic Acquired Resistance (SAR) (e.g. by using Actigard, Regalia or Lifeguard) with post-bloom applications of a copper fungicide. SAR is a general means of activating plant defenses against all pathogens (including pathogens other than fire blight that might be involved in the SAD/RAD complex). Similarly, the copper used to protect against shoot blight infections

would also protect against infection by wood-decay fungi.

2. Protect against *Phytophthora* infection with a program of phosphite fungicides at first leaf. Phosphite fungicides are one of the few fully systemic fungicides. They are absorbed by the foliage and will move to the roots and throughout the canopy. These fungicides are primarily active against *Phytophthora* and other oomycete pathogens, but can have a low level of activity against true fungal pathogens. Following the labeled guidelines for phosphite fungicides products would help minimize the risk of *Phytophthora* infection and potentially impede other wood decay and canker fungi.

Acknowledgements

This article is based on a presentation given by the authors at the 2018 New York Producers EXPO in Syracuse, NY. Part of it is based on interim results of a grower survey conducted by the Eastern New York Commercial Horticulture Team and the Lake Ontario Fruit Team with funding from the ARDP, whose financial assistance is gratefully acknowledged.

A Practical “Visual Pruning Guide” for Young Plantings of Gala, Honeycrisp, and Fuji: Available for the first time in Spanish this Year

Mario Miranda Sazo

These English and Spanish documents contain more than 60 pictures and descriptions to explain why detailed/timely pruning is critical for young trees in the first years after planting. Both are available online at https://lof.cce.cornell.edu/submission.php?id=440&crumb=crops%7Ccrops%7Capples%7Ccrop*38 and are practical and colorful visual guides that show some important pruning cuts to better grow and train the "money-makers": Gala, Honeycrisp, and Fuji trees. The pruning cut decisions are easy to follow and their objectives are simple: (1) help the tree to grow as quickly as possible to the top of the wire and (2) select planar, horizontal, more open one-year old shoots to secure the production of fine fruiting units.

In the next 15-20 days, you (and your pruning crews) will be greatly influencing the future productivity of new apple plantings. If you do a good job, you will positively control the distribution and utilization of sunlight, the quality of foliage, the shape and condition of the canopy, and more importantly, the mass and ratio of structural wood and fruiting wood. Good luck this coming season, and always try to prune smarter, not harder!

For example, a young Honeycrisp tree is less forgiving than Gala. To grow a weak Honeycrisp tree you have to support, prune, leave horizontal shoots, and single the leader. Remove extra shoots at the terminal and divert the growing effort on the central leader (Figure

1). Remove large lower limbs. Always leave longer stubs to secure renewal. Renewal pruning needs to be “accelerated” on Honeycrisp. Removing the largest bottom branch from this slow-growing tree will divert

energy to the growing terminal. The same pruning techniques are applicable for NY-1, or other weak cultivars. First grow the tree, then crop it.



Figure 1. Detailed pruning of young Honeycrisp trees to divert the growing effort on the central leader.

USDA to Measure Tree Fruit and Berry Production

Karen Powell, USDA-NASS, Northeastern Regional Field Office

The U.S. Department of Agriculture’s National Agricultural Statistics Service (NASS) will conduct its end of season surveys for 2017 fruit and berry production beginning in April, 2018. The surveys will collect information on acres, production, and prices from more than 3,000 growers in the Northeastern region of the United States.

“The information from these surveys directly impacts our regions’ fruit and berry growers in many positive ways,” said King Whetstone, director of NASS, Northeastern Regional Field Office. “Growers can use the survey results when making business plans and marketing decisions. USDA’s Farm Service Agency (FSA) relies on the average yields and prices to administer farm programs. Cooperative Extension uses the data to provide needed outreach and education, and State Departments and agencies of agriculture use the information to aid growers.”

In these surveys, NASS asks participants to answer questions on apples, blueberries, cherries (tart), cranberries, grapes, peaches, and pears (depending on state and version of the questionnaire). For convenience, survey participants have the option to respond on-line. As with all NASS surveys, information provided by respondents is kept confidential. NASS safeguards the confidentiality of all responses and publishes only state and national level data, ensuring that no individual producer or operation can be identified.

NASS will compile, analyze, and publish the survey results on June 26th, 2018 in the *Non-citrus Fruit and Nuts Report*. All previous versions of this publication are available online at: <https://www.nass.usda.gov/Publications>. For more information on NASS surveys and reports, call the NASS Northeastern Regional Field Office at 1-800-498-1518.

Training Your Key Hispanic Employees is a Smart Decision

Mario Miranda Sazo

Basic horticultural knowledge among Hispanic orchard workers is critical for the success of your farm operation. Growers who in the past have sent their most talented Hispanic employees to CCE LOF

Hispanic Fruit Schools and educational summer tours are currently assembling more skilled horticultural teams inside their farms. Hispanic employees who have attended our educational

events have increased their overall understanding of rootstocks, crop load management, identification of important apple diseases, irrigation, and pruning (to mention a few!). Innovative fruit companies understand that it is much cheaper to develop a highly skilled and motivated Hispanic fruit team than it is to bring in new people year after year. Empowered and well-trained employees and orchard managers will perform at their best level, make independent decisions, and find ways to improve orchard operations—including planting, pruning, hand-thinning, and harvest. There is currently a new effort to increase their farm management skills through the Labor Ready Farmer project.

As part of this continuous extension effort, we recently offered a full day of educational sessions for Hispanic employees on March 16th and 17th in Wayne and Orleans Counties, respectively. The CCE LOF Hispanic Schools were hosted by Hermana Luci Romero of Our Lady of Guadalupe Catholic Church in Marion, and by Eric and Bobby Brown III of Orchard Dale Fruit Farm, who generously donated their time and resources to facilitate a great educational opportunity for all our participants. More than 80 Hispanic employees were trained on both the east and west side of Rochester this past weekend (24 participants in Wayne and 68 in Orleans)(see Figure 1, below).

At the schools, we continually emphasizing the science behind horticulture and discussed pruning of young and mature high density plantings. Our original English visual pruning guide was translated into Spanish for these schools this year, and several participants found it very useful, as it helped to

reinforce the horticultural knowledge that they gained in the past. A new pest management session (including recognition of key pests) was presented by Professor Art Agnello, who gave a great presentation in Spanish without any simultaneous translation. He also brought a microscope and taught participants how to identify some of the insects found in apple orchards. Libby Eiholzer (a fully bilingual CCE specialist who served as a speaker for the first time this year) inspired the entire group with her motivational presentation and introduced the benefits of working as a team for higher labor efficiency. As in the past, Mary Jo Dudley gave several practical tips to solve conflicts in the workplace. She also served as a facilitator for the round-table discussions we facilitated in conjunction with Chris Wayne and Gaby Pereyra, both from FARMroots, GrowNYC. Adam Karl (a Ph.D. student working with Assistant Professor Greg Peck in Ithaca) introduced the topic of hard cider to participants and described the key attributes of hard cider apple varieties. Some of the production challenges related to biennial bearing, grafting, and fire blight susceptibility were also described.

After lunch, the program continued with a facilitated round-table discussion, in which participants introduced themselves and described their main roles, job aspirations, and main challenges. A group of facilitators guided a discussion about the main roles of an orchard manager and which skills are critical to develop/learn to be successful in Western NY. A skills assessment was implemented at the end of the schools.



Figure 1. Participants at the recent 2018 CCE LOF Hispanic Fruit Schools and Round-table Discussions held as part of the Labor Ready Farmer Project in Western New York

Respirator Fit Testing to be offered in Wayne County

Beth Claypoole

Executive Director, CCE-Wayne County

In a collaboration between Cornell Cooperative Extension Wayne County, Wayne County Farm Bureau and the Finger Lakes Occupational Health Services (FLOHS), we are offering the opportunity for Fit Test and Training – provided by the FLOHS. There is a lot of information below: please read the entire article.

The site is: Pultneyville Lodge, 4035 Lake Rd, Pultneyville, NY. (Next to the fire hall). **The days are:** Monday, March 26th, Thursday, **March 29th**, Tuesday, **April 10th** (with Spanish translation), and Thursday, **April 12th**. Each day will have **time-slots available on the hour, at 9, 10 and 11 am and then at 1, 2, and 3 pm (except March 26th, when appointments will be available at 9, 10, & 11 am, and 1 and 2 pm only.**

The reduced schedule on the first day will help us plan for flow, see how the day goes, give us feedback on how to schedule the other days, and see if we can include more employees per hour. We are planning on accommodating close to 200 employees by the time the sessions are completed.

We are allowing for 8 people for each time period. You may not get your first choice: please bear with us in scheduling; we will keep a waiting list. We are trying to see how many people can be processed per hour on day one, and may be able to increase the number per hour on the following days. However, we will not know this until after March 26th. **Mario Miranda-Sazo, specialist with the Lake Ontario Fruit Team, will be available to help with translation ONLY on April 10th.**

The price: The fit test, fit test training and physical questionnaire plus spirometer (for those who need it) **will be \$100 per employee.** Please **make the check out to: Finger Lakes Occupational Health Services.**

Those needing an additional physical will need to come back on April 12th (or 13th, if an additional day is needed), for an additional fee of \$35.

Please note: ***All employees must be clean shaven!!***
(As per the following regulations):

Face-piece seal protection:

1910.134(g)(1)(i)

The employer shall not permit respirators with tight-fitting face-pieces to be worn by employees who have:

1910.134(g)(1)(i)(A)

Facial hair that comes between the sealing surface of the face-piece and the face, or that interferes with valve function; or

1910.134(g)(1)(i)(B)

Any condition that interferes with the face-to-face-piece seal or valve function.

Note: FLOHS does not supply or sell any respirators. The employees need to come with

respirators and clean particulate filters as well as being clean shaven where the respirator seals to the face.

Please help us spread the word and share this information with your neighbors. There are a

limited number of reservation slots, which will be filled as they are received by phone between the hours of 8:30 am–4:30 pm, by calling the CCE Office at 315-331-8415. Registration is open and slots are filling up quickly!

We hope that this will offer an easier opportunity for growers and employees to meet these Fit Test requirements. Thank you all for the input we received from last year and changes that you would like to see for this year. FLOHS was able to offer reduced prices due to the number of people that we expect to participate – thanks especially to them and to the whole committee for working on this project!

Note: Information on other service providers and additional respirator fit testing locations can be found on the LOF website at:

https://lof.cce.cornell.edu/submission.php?id=521&crumb=crops|crops|apples|crop*38

Mark Your Calendars

Meeting Title	2018 Finger Lakes Craft Beverage Conference and optional Field Trips
Dates	Tuesday, March 27 th (conference) and Wednesday, March 28 th (field trips)
Time	Registration starts 8 am, March 27 th . Field trips: 8.30 am–Noon, March 28 th .
Location	Conference: Del Lago Casino & Resort, 1133 NY Route 414, Waterloo, NY 13165. Choice of 2 field trips: Brewery Field Trip to Fleur de Lis Beer Works or Cidery Field Trip to Red Jacket Orchards and a local cidery.
Cost	\$115 per person. Price includes a light breakfast, lunch, an evening social hour and a Finger Lakes Craft Beverage glass. Field trips are \$20/person (includes refreshments).
Brief description of meeting	Conference will feature multiple tracks with sessions covering legal issues, tax issues, marketing, distribution, beer and cider production issues. The event also includes a trade show and opportunities for networking (including a Social Hour following the sessions). Further details at: www.flcraftbevcon.com
Registration/Contact for information	To register on-line: https://pub.cce.cornell.edu/event_registration/main/events_landing.cfm?event=FLCBC2018_245 To register JUST for one of the field trips, see: https://reg.cce.cornell.edu/FLCBC_fieldtrip-2018_245 For questions, please call Seneca County CCE 315-539-9251 or e-mail Derek Simmonds at dcs285@cornell.edu

Meeting Title	Statewide Honeycrisp Sensory Evaluation
Dates	Wednesday, April 4 – Samples from the Hudson & Champlain Valleys, plus Niagara/Orleans Counties Thursday, April 5 – Samples from Wayne County
Time	Tasting Starts at 10 AM, completing by lunch or 2 PM (or earlier), both days
Location	Location: NYSAES (Raw Products Building, located on Castle Creek Dr., (off Preemption Rd), Geneva, NY 14456
Cost	Free
Brief description of meeting	The main goal of this project is to develop guidelines for precision harvest management by determining if Honeycrisp orchards can be evaluated at harvest for storage potential using fruit dry matter content, fruit mineral (peel and flesh) content, the DA meter, and piecing together complex block histories and cultural practices. The fruit we are analyzing from the 2017 growing season is the last for this project. Cornell and CCE collaborators from across the 3 main commercial apple-growing regions in the state sampled Honeycrisp fruit from nearly 60 orchards annually within a 3-4 week window. At harvest we measured fruit dry matter, mineral concentrations and fruit quality. Now, after ~6 months of storage (with MCP treatment), we are evaluating fruit disorders, quality and conducting <u>sensory analysis of the fruit</u> . This entails taste-testing fruit (buckets for spitting provided!), and rating for texture, flavor, and off-flavors.
Registration/Contact for information	Lunch will be provided each day in appreciation of your time and patience. Please register online at: April 4: https://lof.cce.cornell.edu/event_preregistration.php?event=926 or April 5: https://lof.cce.cornell.edu/event_preregistration.php?event=927 , or contact Kim Hazel for lunch counts (krh5@cornell.edu ; 585-798-4265, Extension 26). For questions, please contact Craig Kahlke at 585-735-5448, or cjk37@cornell.edu

WORKER PROTECTION STANDARD TRAINING and DEC SPECIAL PERMIT TRAINING

For non-certified applicators and handlers of federally restricted-use pesticides

April 4, 2018: WAYNE COUNTY

English 8:30 AM registration; 9:00 AM–12:30 PM
Spanish 1:00 PM registration; 1:30 PM–5:00 PM
Cornell Cooperative Extension Wayne County
1581 Route 88N, Newark, NY 14513

April 5, 2018: ORLEANS COUNTY

English & Spanish 8:00 AM Registration
8:30 AM–12:00 Noon
Orleans County Cooperative Extension Fairgrounds,
Trolley Building, 12690 Route 31, Albion, NY 14411

Certified Supervisors are required to attend the first 30 minutes of training. Workers in need of special permits vs general pesticide training will need to be identified.

As last year, **Special Permits (SP)** will only be issued for 11 specific pesticide labels and SP trainees will have to **pass a test**. This will relieve the certified pesticide applicator from “on-site within voice contact” supervision of non-certified pesticide applicators when they are handling federally-restricted-use pesticides for which they hold a Special Permit. The labels that will be covered include **Lorsban Advanced, Endigo ZC, Warrior II with Zeon Technology, Agri-Mek SC, Besiege, Gramoxone SL 2.0, Leverage 360, Danitol 2.4EC, Mustang Maxx, Asana XL, and Lannate LV**.

New York DEC notes that the **Special Permit process is intended for farm workers with English language skills that are not adequate to pass the DEC private applicators exam**. All others are encouraged to apply for their private applicators license via taking the certification exam.

Workers requiring **general pesticide training/Agricultural Worker Protection Standard Handler training who do not need special permits are welcome to take the class**; they will not be tested and will receive a course participation certificate.

\$20 per DEC Special Permit / General Pesticide Training

Pre-registration required by March 30, 2018. After March 30, a late fee of \$20 will be required for each registrant. **REGISTER BY MAIL** using the form below or **CALL Kim Hazel, 585-798-4265 Ext 26, with all details and pay at the door.** Make check payable to: Cornell Cooperative Extension. Mail registration form and payment to: Cornell Cooperative Extension, Attn: Kim Hazel, 12690 NYS Route 31, Albion, NY 14411

WORKER PROTECTION STANDARD TRAINING and DEC SPECIAL PERMIT TRAINING

This training is being offered in 2 locations.

Wayne Co. ☐

Orleans Co. ☐

CHOOSE THE LOCATION you wish to attend ==>

Farm Name: _____

Farm Address: _____

Name of Supervising Pesticide Applicator: _____

Supervisor's DEC Pesticide Applicator ID No.: _____

Name of non-certified applicator(s): \$20 each, choose sessions (i.e., Special Permit as opposed to general pesticide training):

☐ English ☐ Spanish ☐ Special Permit

☐ English ☐ Spanish ☐ Special Permit

☐ English ☐ Spanish ☐ Special Permit

☐ English ☐ Spanish ☐ Special Permit

☐ English ☐ Spanish ☐ Special Permit

☐ English ☐ Spanish ☐ Special Permit

TOTAL AMOUNT DUE: No. applicators/handlers _____ X \$20 = \$ _____

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

Fruit Notes

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

Fruit Specialists



Craig Kahlke | 585-735-5448 | cjk37@cornell.edu
Team Leader, Fruit Quality Management

Areas of Interest: Fruit Quality and factors that affect fruit quality before, during, and after storage,

Crops: Blueberries, Raspberries / Blackberries, Strawberries, Apples, Apricots, Cherries, Nectarines, Peaches, Pears, Plums



Mario Miranda Sazo | 315-719-1318 | mrm67@cornell.edu
Cultural Practices

Crops: Blueberries, Raspberries / Blackberries, Strawberries, Apples, Apricots, Asian Pears, Cherries, Currants, Gooseberries, Nectarines, Peaches, Pears, Plums



Tessa Grasswitz | 585-261-0125 | tg359@cornell.edu
Integrated Pest Management (IPM)

Areas of Interest: IPM of tree fruit and berry pests, biological control, pollinators, and impact of climate change.

Crops: Blueberries, Raspberries / Blackberries, Strawberries, Apples, Apricots, Asian Pears, Cherries, Currants, Gooseberries, Nectarines, Peaches, Pears, Plum

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