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Cornell Cooperative Extension Lake Ontario Fruit Program

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## Brown Marmorated Stink Bug – trapping and damage

Janet van Zoeren

The brown marmorated stink bug (BMSB), an invasive insect pest of apples, peaches, grapes, nuts, vegetable crops and more, has been on our minds for years now. Art Agnello, Peter Jentsch, and the LOF team have been working together to monitor BMSB numbers in western New York, as well as to work towards better control strategies.

This year we have been catching higher-than-normal numbers of BMSB in orchards in western New York – with several sites catching up to 20 stink bugs in a single trap in a week. The threshold is generally considered to be a cumulative **10 BMSB adults per trap** since the last spray (so if you trap 6 in a week, and then trap 5 the next week, it would be considered time to spray).

One thing that is less well understood at this time is how much damage we can expect to see due to these high stink bug numbers. As discussed in a previous issue of the Fruit Notes (Volume 20, issue 15), stink bug damage can be mistaken for hail or bitter pit, among other disorders. To make things more complicated, stink bug damage is not immediately obvious – often damage is subtle at harvest, but fruit will develop corking and bruising in storage.

So far this year we have seen some stink bug damage. At one site, in a survey of five rows of high density apples, we found only 2 apples with stink bug damage (both in a corner near to the woods). In other locations, there have been reports of several to many damaged apples per tree!

#### What this means for you:

Remember that, if there are minor stink bug symptoms as you harvest, they will only increase if you put the fruit into storage. This is unlikely to affect a significant proportion of the fruit, but is worth being aware of. If something looks like hail or bitter pit, but doesn't seem quite right (maybe due to location on the fruit, cultivars affected, or distribution of damage within the orchard), you may have stink bug damage. Stink bug damage is often (but not always) on the hidden side of the



Stink bug damage: at left, visible stylet insertion hole on the surface of the apple; at right, corking of the flesh that contacts the skin.

fruit, and most prevalent near edges and woods. To differentiate damage symptoms, look on the skin of the apple with a x10 handlens to spot the feeding hole, and cut the apple open to look for corking that contacts the surface skin of the apple. If you have questions, feel free to contact me.

If you are interested in trapping for stink bugs in your own orchard next year, you can monitor for BMSB using either a black pyramid trap, generally about four feet tall, with a collection jar containing a kill strip at the top of the trap, or a clear sticky panel trap mounted about 4-5 ft above the ground. Either trap uses a lure with aggregation pheromones to attract BMSB. Traps are set along the orchard borders, to intercept BMSB as they often fly into the orchard from surrounding woods and hedgerows.



Until this year, BMSB populations have recently been on the decrease in our region. My best guess is that this is just a normal population fluctuation, combined with perfect weather conditions, causing them to be on the rise again. However, it also is possible we've been letting our guard down as we focus on other pests and priorities. Next year I would like to continue monitoring for the adult bugs in the traps, but also add a more thorough damage assessment at some sites, to help get a handle on the extent of stink bug damage in our region.

# 2020 Apple Marketing Order Continuing Referendum Vote Notice to Growers: Ballot Currently Available on the Department's Website

The Department of Agriculture and Markets is announcing a referendum for the approval of the New York State Apple Marketing Order (AMO). At least 50 percent of all New York State apple growers participating in the referendum must approve the Marketing Order for it to continue.

Printable ballots and information on the AMO program can be found on the Department's website at <u>https://agriculture.ny.gov/farming/marketing-order-administration.</u>

Ballots submitted by eligible growers must be mailed no later than **October 26, 2020** to Department at:

State of New York Department of Agriculture and Markets Division of Agricultural Development 10B Airline Drive Albany, New York 12235

Information on all of New York State's Marketing Order programs can be found on the Department's Marketing Orders web page: <u>https://agriculture.ny.gov/farming/marketing-order-administration</u>.

Press release available at: <u>https://agriculture.ny.gov/news/2020-apple-marketing-order-continuing-referendum-vote-notice-growers</u>

# CFAP 2—USDA's Way of Giving You a Check to Help with Your Other COVID Expenses: Take Them Up On It!

Elizabeth Higgins, CCE Eastern NY Commercial Horticulture

This USDA administration is not creative when it comes to naming programs. So yes, the new CFAP 2 is a totally different program than CFAP 1 (which is also a totally different program than the CFAP food box). If you got a check for CFAP 1, based on your sales in 2020 or unsold 2019 inventory you can still get a check for CFAP 2. Your CFAP 1 payment also does not affect your payment limitation for CFAP 2. Regardless of how much you received, your farm is eligible for up to \$250,000 per entity to a maximum of \$750,000 for a farm with three members that provide at least 400 hours of active labor or management on the farm.

So CFAP 2 is really simple. USDA will give you a percentage of the value of your 2019 specialty crop sales. That's it. The payment is for "income received for sales in the 2019 calendar year". The crop year is immaterial. For example, income received for 2018 apple crop in storage sold in 2019 would count. 2019 apple crop in storage sold in 2020 would not count. Calculating your payment is simple.

Pretty much every crop you sold would count and you don't have to break it out by crop to apply, you just need your sales totals. Payments are only on the value of the raw commodity, not on a value added product, so you would need to take out your cider, juice, pie or other value added sales in your calculation, but could add in the value of the commodity used if you have records to document this.

There are programs for field crops, livestock, and dairy. The calculations for payments for these commodities is different. Christmas trees and maple syrup are also eligible specialty crops, as is honey, and would be included in the specialty crop calculation.

You have until December 11, 2020 to apply. USDA has said that they will not run out of money for this program. However, the application is relatively straightforward and simple so there is no reason to put it off and risk missing this opportunity. You apply at <a href="https://www.farmers.gov/cfap">https://www.farmers.gov/cfap</a> or contact your local USDA FSA office.

# A Tale of Fire and Ice: How do drought and frost affect weed management?

Dr. Lynn Sosnoskie, Cornell AgriTech

### **Drought Effects on Post-Emergent Herbicides**

This summer and fall, orchard managers have been faced with dry periods that have resulted in reduced weed control. Although fewer weed seeds may germinate under drought conditions, weeds that do emerge may be more difficult to manage with post-emergence herbicides. Moisture-stressed weeds are likely to have thicker cuticles (which is the waxy coating on the surface of the leaf), which can inhibit the absorption of foliar-applied products. Additionally, plant architecture can be altered when it is hot and dry (for example, fewer and/or drooping leaves) meaning that herbicide capture and retention may be reduced. When weeds are not actively growing, systemic herbicides, like glyphosate, may not be effectively translocated to their target sites. Although contact herbicides, like paraquat, may be less likely to be affected by dry conditions, herbicide efficacy could be reduced if spray droplets dry rapidly (either in the air or on plant surfaces) and sufficient coverage is not achieved.

### **Drought Effects on Residual Pre-Emergent Herbicides**

In addition to affecting the types and numbers of weeds that germinate and emerge, warm temperatures and reduced soil moisture can also affect the performance of residual herbicides. Without precipitation or irrigation, many soil-applied herbicides cannot be effectively activated; this means being moved into the soil water solution so that they can be taken up by emerging weed seedlings. Some herbicides can be mechanically incorporated, although product distribution may be uneven in dry soils. Additionally, the potential for photodegradation or volatilization may be increased under hot and dry conditions, resulting in reduced herbicide efficacy and/or unintended offtarget movement.



For the best fall control of perennials, such as Canada thistle, systemic herbicides should go on prior to the first hard frost, while weeds are still green and healthy to maximize their capture and uptake of the active ingredient. This may be difficult in blocks of late maturing varieties where there is a short window of time between harvest and first frost.

#### On the Other Side of the Spectrum: Frosts and Herbicide Performance

As we move deep into fall, there is another weather-related concern that may negatively affect weed control efforts: frost. As the season progresses, summer annual weeds will begin to die, and perennial weeds will start to go dormant, limiting the efficacy of some post-emergent herbicide applications. Incidences of frost can further complicate weed control efforts as damage to leaf tissue can inhibit the capture and uptake of herbicides. While the efficacy of proposed chemical control strategies can be affected by the degree of frost injury experienced by the target plants, past weather events are only one part of the weed control equation. Weather for the days following frost events can influence plant vigor and recovery from the initial cold damage. Predicted day- and night-time temperatures will also impact herbicide selection and the speed with which they work; always read herbicide labels to identify the optimum application conditions prior to pesticide treatments.

## Fall Strawberry Management

Esther Kibbe, WNY Berry Specialist, Harvest NY

It is easy to forget about your strawberries this time of year, with the focus on fall crops, but there are some critical activities that will set you up for a successful crop next spring. As days shorten, and temperatures cool, the plants are creating the flower buds for spring, and storing up energy for winter survival, so fertility, disease management and weed control are important right now.

**Fertilize:** If you haven't already, it is time, and getting late, to apply nitrogen. Ideally, N rates should be based on leaf analysis (the lab report will give recommended rates) but if you don't have that, 30-50 lb of actual N per acre is appropriate for many fields. Phosphorous (P) is usually adequate in most WNY fields, especially if manure has been used in the past. If you don't have fertilizer supply on hand, common lawn fertilizer blends of 26-0-3 or 29-0-4 (or similar) are cheap and readily available products. Just be sure to avoid "weed and feed" products, as the herbicide might not be labeled or compatible with strawberries. *Note that fall nitrogen is only appropriate for strawberries – raspberries and blueberries should only get N applied in the spring.* 

**Diseases:** Some strawberry fields are showing serious powdery mildew and leaf spot issues. These reduce the plant's ability to store energy and can negatively impact winter survival. Infections now will also contribute to disease developing in the spring, when it will be more difficult to manage, due to spray restrictions around bloom and harvest. **Powdery mildew** causes leaves to curl upwards or show whitish spots. Even more obvious are the other foliar diseases: Leaf Spot, Leaf Scorch and Leaf Blight. **Leaf Spot** causes purplish lesions with brownish or gray centers. **Leaf Scorch** lesions look very similar, except that the centers stay purple, and can eventually cover the whole leaf. **Leaf Blight** lesions look similar early on, but will grow to form a dry brown v-



Leaf blight infection often develop into a V-shaped lesion.

Leaf spot lesions are purplish, with a pale center.

Powdery mildew causes leaves to curl upwards, and infected areas can turn purple or brown after treatment.

shaped lesion. Each has a slightly different set of approved fungicides, with some overlap – be sure to check the labels or the Cornell Guidelines. Before autumn rains saturate the soil, September and October are a good time to apply Ridomil Gold or Phostrol to reduce **Red Stele** and **Phytophthora** root rots.

**Weeds**: Fall is a critical time to manage weeds in strawberries. Hand weed or cultivate to reduce perennial weeds going into winter. Preemergent herbicides such as Dacthal, Devrinol and Sinbar can be applied now until you cover with straw mulch or fleece. 2-4,D and Stinger may be used for specific weed issues. Be sure you know the types of weeds in your field – some may require a particular herbicide for successful control.

If you'd like a farm visit to help with disease, pest or weed identification, I am available to help all berry growers across WNY. Call 607-351-1991 to schedule a visit or ask questions.

# New York Sick Leave Requirement: What We Know, Still Don't Know, and Action Items

Dr. Richard Stup, Cornell Cooperative Extension, Agricultural Workforce Development

### What We Know

#### The Law

New York State, in the <u>2020 budget act</u> (<u>https://legislation.nysenate.gov/pdf/bills/2019/s7506b</u>), mandated annual sick leave on a permanent basis. There is no exemption for farm employers from the sick leave requirement and we expect most farms with hired employees to be affected. The amount and type of sick leave required varies by employer size and income, as follows:

- For employers with 4 or fewer employees and less than \$1 Million in net income: 40 hours of **unpaid** sick leave per employee
- For employers with 4 or fewer employees and **greater than** \$1 Million in net income: 40 hours of **paid** sick leave per employee
- For employers with between 5 and 99 employees: 40 hours of **paid** sick leave per employee
- For employers with greater than 100 employees: 56 hours of **paid** sick leave per employee

Note that this is a new requirement for all employers, if you already provide sick leave that meets or exceed these levels then your policy already meets the requirement. Employers are not required to provide the sick leave until **January 1, 2021** but they are required to begin accruing hours of sick leave for employees on **September 30, 2020**.

#### Reasons to Use Sick Leave

The new law has detailed requirements about reasons for sick leave that your policy must also meet, including some that you might not expect. According to the law, employers must provide leave:

- i. for a mental or physical illness, injury, or health condition of such employee or such employee's family member, regardless of whether such illness, injury, or health condition has been diagnosed or requires medical care at the time that such employee requests such leave;
- *ii.* for the diagnosis, care, or treatment of a mental or physical illness, injury or health condition of, or need for medical diagnosis of, or preventive care for, such employee or such employee's family member; or
- iii. for an absence from work due to any of the following reasons when the employee or employee's family member has been the victim of domestic violence (...), a family offense, sexual offense, stalking, or human trafficking: (a) to obtain services from a domestic violence shelter, rape crisis center, or other services program; (b) to participate in safety planning, temporarily or permanently relocate, or take other actions to increase the safety of the employee or employee's family members; (c) to meet with an attorney or other social services provider to obtain information and advice on, and prepare for or

participate in any criminal or civil proceeding; (d) to file a complaint or domestic incident report with law enforcement; (e) to meet with a district attorney's office; (f) to enroll children in a new school; or (g) to take any other actions necessary to ensure the health or safety of the employee or the employee's family member or to protect those who associate or work with the employee.

### **Accrual and Carryover**

Employees can accrue sick time at a rate of no less than 1 hour of sick time per 30 hours worked, or the employer can choose to award all of the sick time upfront at the beginning of the calendar year. If the upfront approach is used the employer is not permitted to reduce or revoke the awarded sick time if the employee ends up working fewer hours during the year than expected. Unused sick time must carry over to the next year but employers with less than 100 employees can limit use of sick leave per calendar year to 40 hours, and employers with greater than 100 employees can limit it to 56 hours.

### What We Still Don't Know

In spite of repeated requests by employers, business organizations, accountants, attorneys and this author, the NYS Department of Labor has not yet provided details about many important questions relevant to farm employers.

- How will net income be calculated? What formula will NYS Department of Labor use?
- What about seasonal farm employees, are they included in the sick leave requirement? How many hours or days must they work each year to be included in the employer's number of employees?
- Can employers provide a pro-rated amount of sick days upfront to seasonal employees, such as 20 hours for employees who work 5-6 months, or must the hourly accrual of 30:1 be used?
- What about family members who work on the farm as defined in the Farm Laborer Fair Labor Practices Act, is sick leave required for them?
- What about youth workers, employees under age 18, are they included in the sick leave requirement?
- What about different business entities with varying levels of share ownership? Which of those entities will be combined in order to calculate the number of employees?

We will continue to press for answers to these and other relevant questions and will share this information through written releases and employer training when available.

### **Actions Items for Employers**

- 1. Track hours worked for **all employees** beginning September 30, 2020, if not already doing so. Employers can always go back and credit employees with sick time earned if the number of hours worked is known.
- 2. Consider adopting modern software and tracking systems to create employee schedules, record hours worked, integrate with payroll, and keep track of sick leave and vacation accrual and usage for all employees.
- 3. Review your current sick leave policy and update as needed.
- 4. Train managers and employees about your sick leave policy and any changes that will occur.
- 5. Stay tuned to the <u>Ag Workforce Journal (https://agworkforce.cals.cornell.edu/</u>) and other industry newsletters for more information about New York's sick leave requirements.

This article originally appeared in The Ag Workforce Journal: https://agworkforce.cals.cornell.edu/?p=1856

### 2020 NY Labor Law Updates

Dr. Richard Stup, Cornell Cooperative Extension, Agricultural Workforce Development

2020 brought additional changes to the NY farm labor laws. Overtime and day-of-rest rules apply to most farm employees but some family members and certain managers may be exempt from these provisions. Review a <u>video overview</u> (<u>https://agworkforce.cals.cornell.edu/regulations/</u>) of the new rules and check out a more in-depth <u>webinar and presentation</u>

(<u>https://agworkforce.cals.cornell.edu/regulations/2019-new-york-flflpa-labor-law-changes/</u>) on the Cornell Ag Workforce website.

Meeting Title	Annual LOF Advisory Committee Meeting (via Zoom)
Dates	Monday, Nov 9, 2021
Time	9:30am-3:30pm
Location	Online, via Zoom
Brief description of meeting	Please join us (virtually) for our annual winter advisory meeting where you can spend time with the team reviewing the team's educational programs and most importantly providing us feedback. Advisory meetings are important for the team to ensure that our programs and research are aligned with the industry's needs. All are invited! Full agenda forthcoming in a few weeks.
Cost	Free
Registration/Contact	Please Pre-Register: https://cornell.zoom.us/j/91817458122
	?pwd=cUM1VWVJbmM5cFNLNGxiUFVxOEIYZz09
	Questions? Don't hesitate to contact Craig 585-735-5448 or
	cjk37@cornell.edu

# Mark Your Calendar

Meeting Title	CCE's NY Tree Fruit Conference sponsored by the CCE Eastern NY Commercial Horticulture Program and the CCE Lake Ontario
	Fruit Program
Dates	Feb 2-4, 2021
Time	TBD
Location	Virtual
Cost	TBD
Brief description of	For 2021, this will replace CCE-LOF's Winter Fruit Schools and
meeting	CCE-ENYCHP's Fruit & Vegetable Conference
	DEC Credits being applied for at multiple sessions
	More to follow in the coming weeks!
Registration/Contact	Stay tuned for more information

# Cornell Cooperative Extension

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

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Contact Us



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# **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



Janet van Zoeren 1 585-797-8368 1 jev67@cornell.edu Integrated Pest Management (IPM)

Areas of Interest: IPM of tree fruit and berry pests, biological control, and pollinators. Crops: Blueberries, Raspberries / Blackberries, Strawberries, Apples, Apricots, Asian Pears, Cherries, Currants, Nectarines, Peaches, Pears, Plum



Mark Wiltberger | 315-272-8530 | mw883@cornell.edu Business Management

Crops: Apples, Cherries, Nectarines, Peaches, Pears, Plums