**Cornell Cooperative Extension** 

Eastern NY Commercial Horticulture Program

# **Tree Fruit News**

June 2022 Volume 10, Issue 3

## Post-Petal Fall Insect Pests on the Horizon

#### Art Agnello, Cornell University; edited by Monique Rivera and Mike Basedow

As with many other biological events, insect development responds positively to warmer conditions. This was the case this year for sure, as we saw a marked uptick in pest activity following the stretch of hot weather we had around May 13-15 this season. Now that we are accumulating some heat units, management decisions for most major pests will tend to need addressing on a fairly predictable schedule. The following is a long-view update of some of the traditional crop protection scenarios during this period.

#### **Plum Curculio**



Plum curculio damage. Photo: Ontario Ministry of Agriculture Food and Rural Affairs.

After moving into the orchard at bloom, egg laying for the next generation of plum curculio only continues for a limited amount of time. The warmer the post-petal fall period is, the quicker they finish which suggests that this year may potentially by a lesser year for plum curculio given our warm stretches. In order to determine how many cover sprays may be needed, utilize the longterm forecast to adequately protect your orchards until the ovipositing is finished. Coverage should remain in place until 308DD have accumulated since petal fall on your site. This can be easily determined using the <u>Plum Curculio model on</u> <u>NEWA</u>. Where additional applications against curcs are still warranted, some effective options included

Imidan, Actara, Avaunt, Exirel, Verdepryn, Besiege, and Minecto Pro.

For apples, if you additionally have **Rosy Apple Aphid** colonies active in your trees and want to guard against the buildup of foliar colonies later, consider an application of a material having good activity on this species (e.g., Actara, Admire Pro, Assail, Exirel, Leverage, Minecto Pro, or Sivanto Prime).

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#### **European Apple Sawfly**

Traditionally confined to the eastern half of the state, the adults start laying eggs on or near newly set fruitlets at petal fall, so the plum curculio applications will have done double duty against this pest as well. Effective options include Imidan, Actara, Altacor, Avaunt, Exirel, or Voliam Flexi.

#### **Obliquebanded Leafroller**

Early heat this year has brought about the threat of OBLR sooner than usual. Depending on your location, larvae from the overwintering generation should also be able to be found in various stages of development. Pheromone traps should already be out in problem apple blocks, to fix the date of first emergence in your specific area. Recall that we recommend sampling at 600 DD (base 43°F) after the first adult catch, to determine the need and timing for treatment. For problem orchards with a reliable OBLR history where sampling is generally not needed, egg hatch (which equates to the first occurrence of susceptible larvae) occurs more or less 350 DD after the 1st adult catch. Once again, the <u>Apple IPM Insect Models</u> <u>Website</u> can help you zero in on these events in your specific area.

In orchards not too removed from petal fall and containing large larvae, an application of Intrepid, Proclaim, Rimon, Grandevo, or a B.t. product (e.g., Agree, Dipel, Deliver, Javelin) at this time will help diminish the population for better management during the summer. Although Altacor, Delegate, or Exirel are also very effective against OBLR, it would be advisable to save these big guns for the summer generation larvae, which are more of a direct threat to the developing fruits.



*Obliquebanded leafroller larvae. Photo: Todd M. Gilligan and Marc E. Epstein, CSU, Bugwood.org* 

#### **European Red Mite**

Mite populations should be starting to build with warm temperatures, and adults may already be present in some warmer areas, which means that they'll be laying summer eggs that will hatch and create problematic populations. If you failed to take advantage of pre-bloom opportunities for early season oil or miticide applications, it's not too late to use one of the preventive materials such as Savey/Onager, Apollo, Agri-Mek, Nealta, Portal, or Zeal in problem blocks or where you may have noted ERM eggs.

In situations where European red mite pressure or the crop's sensitivity to them haven't necessarily justified an early season treatment with any of the above options, this is the time of year when a summer oil program also might be considered as an alternate preventive approach. Our field research trials have shown the effectiveness of using a highly refined oil in a seasonal program to control mites throughout the summer. Some examples of these products are PureSpray Spray Oil 10E, BioCover UL, or PureSpray Green (all from Petro Canada), Stylet-Oil (JMS Flower Farms), and Omni (an ExxonMobil product formulated using Orchex 796 and distributed by Helena); others are available, such as Damoil (Drexel), Saf-T-Side (Brandt Consolidated) and Mite-E-Oil (Helena), although we haven't tested all brands.

Our approach is to make three applications, on a preventive schedule, immediately after the petal fall period, before mite populations have a chance to build. The first application can be any time from petal fall to 1–2 weeks later, followed by two additional sprays at 10–14 day intervals. The oil is not concentrated in the tank, but rather mixed on the basis of a rate per 100 gallons of finished spray solution; in most cases, we recommend 100 gal per acre. A rate of 1–2 gal/100 should maintain control of most moderate populations. Don't apply without leaving at least a 10–14-day interval before or after a captan spray, or an application of any thinning materials.

#### San Jose Scale

Minute SJS adult males emerge in the spring from beneath scale covers on the trees, usually following petal fall, and mate. The females produce live crawlers about 4–6 weeks after mating; these make their way to new sites and insert their mouthparts into the tree, secreting a white waxy covering that eventually darkens to black. SJS infestations on the bark contribute to an overall decline in tree vigor, growth, and productivity. Fruit feeding causes distinct redpurple spots that decrease the cosmetic appeal of the fruit. Insecticidal sprays are most effective when directed against the first generation crawlers, specifically timed for the first and peak crawler activity, which are usually 7–10 days apart.

In the Geneva area, first crawler emergence has tended to occur sometime around mid-June. If a treatment against this stage is



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San Jose scale female scale covering and winged male adult. Photo: 2013 Encyclopedia Britannica Inc. needed, Esteem 35WP is one option. It should be applied at 4-5 oz/ acre at first crawler emergence; a low rate (0.25% or 1 qt/100) of a highly refined summer oil (see above) has been shown to improve penetration and, therefore, control. Additional products showing control efficacy include Centaur (except Nassau and Suffolk Counties), Movento (which must be mixed with an organosilicone or nonionic spray adjuvant), Sivanto Prime, Venerate, and Assail. Other options include Imidan, Admire, or pre-mixes such as Endigo, Leverage, or Besiege. These applications should also be effective against White Prunicola Scale, which has gotten to be increasingly common of in our area, in apples as well as peaches.

#### **Codling Moth**



Your best control will come from timing your sprays based on degree day accumulations following your biofix date. Again, these timings can be determined using your trap data and the <u>Insect Pest</u> <u>Models page on</u> NEWA. The first

Codling moth larvae. Photo: Utah State University Extension

spray is recommended at 150 DD (base 50°F) for ovicidal materials (Rimon, Intrepid, Esteem), at 250-360 DD for larvicidal materials. Options include the diamides, Assail, Delegate, and possibly Imidan, depending on the status of resistance in your local populations. Options for mating disruption, always a recommended complement to your insecticide programs, include Isomate CM/ OFM TT or CM/ OFM Mist, Suterra Puffer CMOFM, and Cidetrak CMDA Combo Meso -A. As for oriental fruit moth, don't overlook the potential contribution of granulosis virus products (Madex and Virosoft CP4) as a complement to your management program.

#### Woolly apple aphid

There have been an increasing amount of reports of blocks with problematic populations of woolies the past few years. Options include Diazinon (the best, but a problematic choice for some growers), Movento at PF–1C or whenever infestations are noted, Assail, and Sivanto. See the following article for thorough details on WAA.



Wooly apple aphid. Photo: Greg Krawczyk

#### Black stem borer

Management options are still considered provisional, since nothing we have will completely control this insect. However, trunk sprays are definitely the best option; Warrior II or Danitol are your two options now that we don't have Lorsban.

#### **Dogwood Borer**

From our observations, DWB is very widespread throughout many Eastern NY orchards with young plantings. While we do not have a complete picture of the effects of these borers on dwarf trees, we do know that they reduce vigor and can, in time, completely girdle and kill trees.

In New York, adult emergence generally begins about early June, with flight peaking in about mid-July.

A control option would be two coarse trunk applications of Assail; one by mid-June, and another by early August. Additionally we have a mating disruption option available, Isomate-DWB, which we have found to be very effective in interfering with these insects' pheromone communication process. Use of this product would be recommended as a tactic up to early June, before the first adult catch of the season, and in plantings with annual DWB pressure, should be considered as a valuable complement to a trunk spray program.

#### Spongy Moth

These are once again showing up in blocks across ENY this season. These are readily controlled by some of the broadspectrum insecticides, including Imidan, Delegate, Danitol, and the B.t.s (Agree, Dipel, Deliver, Javelin, etc.).



Spongy moth larvae. Photo: Dan prairie

#### **Brown Marmorated Stink Bug**

It is too early to think about control just yet, but if any are found inside your orchard later in the summer, a treatment should be considered. Some later season treatment options include Endigo, Besiege, and Lannate.

#### Pear Psylla

These insects should also have been making steady progress, and the warming temperatures will eventually result in the production of summer nymphs. Since resistance issues are always a challenge, it makes sense to rotate among classes that you haven't used before. Particularly if you weren't able to get an oil spray on before bloom, populations of 1–2 per leaf would be an indication of the need for a prudent application of Agri-Mek at this time. Alternatively, Actara, Admire, Assail, Centaur, Danitol, Delegate, Esteem, Exirel, Movento, Nexter, Portal, Sivanto Prime, Warrior, Voliam Flexi and Agri-Flex (Continued on page 4)

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also have varying degrees of effectiveness against this pest, usually negatively correlated with frequency of past use. Additionally, the recently expanded Magister label includes pear psylla, which we haven't tested, but may show promise owing to its being a novel a.i. (fenazaquin) against this species.

#### **Spotted Wing Drosophila**

Normally not considered to be a significant threat to tree fruits, SWD has caused problems in sweet and (particularly) tart cherry plantings over the past few years. Most programs require weekly applications, and the options comprise several pyrethroids (Mustang Maxx,



Danitol, Lambda-Cy), as well as Delegate, Entrust, Exirel, and Grandevo. The SWD blog site (<u>http://</u> <u>blogs.cornell.edu/swd1/</u>) contains current trapping results and links to quick guides for product selection in various tree fruits and berry crops.

Spotted wing drosophila. Photo: Oregon Department of Agriculture

#### **Stone Fruit Aphids**

Although green peach aphid is not always a serious pest every year, colonies of these greenish, smooth-looking aphids are likely to occur in peach blocks during this period, along with their damage, which causes curled leaves that may turn yellow or red in severe cases. The young aphids begin to hatch about the time of peach bloom and remain on the trees for 2–3 generations, until early summer, when they seek other hosts (mainly vegetable truck crops). Green peach aphids suck the sap from the new fruits and twigs, and can be found on plum, apricot, cherry, and many ornamental shrubs. These insects are difficult to control; the recommended options, where needed, include Actara, Admire, Assail, Beleaf, Grandevo and Movento. Lannate is an alternative, but possibly less effective choice.

Applications are recommended before excessive leaf curling occurs, in order to maximize the spray's effectiveness. Also, keep an eye out for black cherry aphid in your cherry trees after shuck fall. If colonies are building up on the foliage, recommended materials include Admire, Assail, Beleaf, Exirel, Grandevo, Movento, Sevin, and pyrethroids such as Asana, Baythroid, and Warrior. Pre-mixes labeled for this use include Endigo, Leverage, Minecto Pro, Voliam Flexi and Voliam Xpress/ Besiege.

#### **Cherry Fruit Flies**

It is too early for catches of adults on sticky board traps, but because of the zero tolerance in cherries for insect damage or presence, it is prudent to begin sprays in your cherries soon after shuck split (for this pest as well as for curculio). Imidan (tart cherries only), Sevin, Diazinon, Assail, Actara, Delegate or the pyrethroids are all effective treatments. Sevin will also control black cherry aphid.

#### **Lesser Peachtree Borer**

Currently the best Lorsban alternative is Isomate-PTB Dual for pheromone disruption. Now is a good time to think about hanging the ties (150-250/acre will disrupt both species — Peachtree Borer appears about mid-June in our region; use the higher rate where pressure is more severe). This pest increases the severity of Cytospora canker infections in peaches and is often found within the canker; by feeding in the callus tissues, it interferes with the tree's natural defenses against the disease. Infestations can be determined by the presence of the insect's frass, which resembles sawdust, in the gum exuded from the wound. In peaches, you can use Baythroid, Pounce, or Warrior II for this application (or pre-mixes such as Endigo, Gladiator, Leverage, or Besiege). In cherries, use Baythroid, Pounce, Warrior II, Endigo, Gladiator, or Besiege, and observe the proper PHIs for these respective materials. Check the labels of all products for the recommended target area, where applicable (trunk vs. foliar).

#### **Woolly Apple Aphids**

# Art Agnello, Cornell University; edited by Monique Rivera and Mike Basedow

#### Intro

Woolly apple aphids have been showing up in increasing numbers the past few years in Eastern New York orchards. In addition to apple, its hosts include American elm, hawthorn, and mountain ash. It overwinters as an egg in bark cracks and crevices, or as a nymph on roots underground and in various protected locations on trees. WAA is attracted to the base of root suckers and around pruning wounds and cankers on limbs and trunks, and colonizes both aboveground parts of the apple tree as well as the roots. In the spring, the nymphs, which are reddish-brown with a bluish-white waxy covering, crawl up from the roots to initiate aerial colonies. These initially build up on the inside of the canopy on sites such as wounds or pruning scars, and later become numerous in the outer portion of the tree canopy, usually during late July to early August.



Terminal infested with woolly apple aphid. Photo courtesy OMAFRA.

#### Damage

The aerial colonies occur most frequently on new growth, water sprouts, unhealed pruning wounds, or cankers. The main injury to young and mature trees is stunting due to the formation of root or twig galls; mature trees are usually not severely damaged. However, heavy infestations cause honeydew and sooty mold on the fruit and galls on the plant parts, which interferes with harvest operations because red sticky residues from crushed WAA colonies can accumulate on pickers' hands and clothing.

#### Monitoring

Beginning now and extending through June, water sprouts, pruning wounds, and scars on the inside of the tree canopy should be examined for WAA nymphs. During mid-July, new growth around the outside of the canopy should be examined for WAA colonies. No economic threshold has been determined for treatment of WAA, but they are difficult to control, so the occurrence of any colonies should prompt the consideration of some remedial action.

#### **Control Options**

WAA is frequently parasitized by *Aphelinus mali*, a tiny wasp that is also native to North America. Parasitized aphids appear as black mummies in the colony. A. mali has been successfully introduced to many apple-growing areas of the world, and is providing adequate control of the WAA in several areas. It does not provide sufficient control in commercial orchards in our region because of its sensitivity to many commonly used insecticides; however, the wasp is thought to reduce WAA populations in abandoned orchards.

WAA is difficult to control with insecticides because of its waxy outer covering and tendency to form dense colonies that are impenetrable to sprays. Insecticide treatments are more effective the earlier they are applied, since they are more capable of decreasing the population before it becomes widespread, and the insects' waxy covering is less extensive earlier in the season. WAA is resistant to many commonly used broad-spectrum products, but other insecticides are effective against WAA, including Diazinon and Movento, and some additional products such as Admire, Assail, Beleaf, or Sivanto Prime may be good alternatives. For Movento and Assail, addition of a non-ionic surfactant (e.g., LI-700 or Regulaid) or horticultural mineral oil will improve activity. Good coverage to soak through the insects' woolly coverings is integral to ensuring maximum efficacy. In orchards where WAA has previously been noted as a recurring problem, the petal fall to first cover period would be a good time for a protective application of Movento, at the 8–9 oz/A rate. Because this material has systemic activity, the best efficacy will be obtained by following up with a second spray in 14 days. It is additionally effective against San Jose scale, the crawlers of which are anticipated to begin emerging soon and it would be best to use this as a combined treatment for both.

### Bitter Rot and Sooty Blotch/Flyspeck Management Dr. Kari Peter, PSU

Late June through harvest is the critical time for bitter rot management. Warm temperatures and rainfall are the ideal conditions for disease development.

Growers are encouraged to apply fungicides on bitter rot susceptible apple blocks before any rain event starting in late June. Management programs for bitter rot will also manage SBFS. Specific fungicide recommendations are described for the summer.

#### Bitter rot management

Bitter rot is one of the most important fruit rots to affect apple growers in the Eastern U.S. over the last several years. The fungus causing the disease is one of the few fruit rot organisms that can penetrate the unbroken skin of the fruit. When the spore penetrates the skin, the infection will then go dormant (quiescent phase) for a period of time. During this time, the spore does not grow and is not susceptible to fungicides. Consequently, fungicides need to be applied prior to the initial infection of the spore. Maturity of the fruit, temperature, humidity, and presence of disease are factors that determine when the quiescent period ends and the disease symptoms manifest.

Over the last several years, we have been studying how to best

manage bitter rot. Our research to date has shown that the bitter rot spores are

available all



Bitter rot management is needed from late June through harvest. Photo: Kari Peter, Penn State

season long, most likely residing throughout the tree in buds and mummified fruit left in the tree. The spores are dispersed by rainwater and high disease pressure is favored by warm temperatures and prolonged periods of moisture.

We have shown that fruit are most susceptible to infection when these conditions are most favorable, which is typically from late June through harvest. During this period, growers are encouraged to apply fungicides before or during the infection period. We have studied all of the fungicides labeled for apples and have identified those that are best for managing bitter rot. Growers are encouraged to tank mix one of the following with

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captan (2-3 lb/A):

- Aprovia (FRAC 7; 30 day PHI)
- Omega (FRAC 29; 28 day PHI; Use at 13.8 fl oz/A)
- Flint Extra (FRAC 11; 14 day PHI)
- Luna Sensation (FRAC 7 + 11; 14 day PHI)
- Merivon (FRAC 7 + 11; 0 day PHI)
- Fontelis (FRAC 7; 28 day PHI; Use at 20 fl oz/A)

Be sure to rotate FRAC groups for fungicide resistance management. Growers need to keep in mind what was applied in the early season to manage apple scab since FRAC 7 and FRAC 11 fungicides, regardless if they are in a premix or by themselves, are limited to four complete spray applications per year.

Additional products can be added that have been observed to help with bitter rot management. Research in the Southeastern U.S. has shown the addition of phosphorous acid-based products (Rampart, ProPhyt, etc.) helps with bitter rot control. We are currently evaluating these products under PA conditions. We have also observed Regalia (1-2 qt/A) tank-mixed with a conventional spray application gives an added boost in protection, which would be most beneficial during seasons with frequent rain events, such as the summer of 2018. Organic options are limited. We have observed control using sulfur; however, sulfur can cause fruit russeting when temperatures are at 80°F or higher. Bacterial-based products, such as Serenade and Double Nickel, have offered limited rot protection but have to be applied repeatedly since these products can be washed off easily. We are currently researching additional alternatives to increase the tools in the grower toolbox.

#### Sooty blotch and flyspeck management

Sooty blotch and flyspeck (SBFS) are additional summer diseases that can cause headaches for apple growers. The diseases often occur concurrently on the fruit resulting in surface blemishes that detract from fruit appearance, lowering fruit quality and market value. Sooty blotch also shortens fruit storage life because of increased water loss.

The fungi causing the diseases overwinter on the twigs of many woody plants as well as apple and pear. Spores of the fungi are windblown into and throughout the orchard; fruit infection can occur any time after petal fall but is most prevalent in mid-tolate summer. There are several disease models, which are variations on the original model published by Brown and Sutton (1995), to predict sooty blotch and flyspeck infection periods. For the Brown and Sutton model, leaf wetness hours greater than four hours starting 10 days after petal fall are counted. The threshold to start treatment begins approximately at 220 hours of leaf wetness. Luckily, we have a <u>NEWA tool</u> to help you determine when your fruit become susceptible based on your petal fall date and your last fungicide application date. Disease outbreaks are favored by extended periods of abovenormal summer temperatures combined with frequent rainfall and high humidity. These diseases usually appear on fruit late in the season. New infections can be observed as late as September. Regular captan (2-3 lb/A) applications are enough to manage SBFS. However, if there are frequent rain events occurring, growers are encouraged to add Topsin M (1 lb/A; 1day PHI) to captan since captan can be washed off. During the 2018 season, there were a lot of issues with SBFS primarily due to growers only using captan and the captan getting washed off. The addition of Topsin will provide extra protection during very wet periods. In addition, the products recommended to tank mix with captan to manage bitter rot will also manage SBFS.

Organic options that have some efficacy include sulfur, Oso (4.5 fl oz/A), and bacterial-based products (Serenade, Double Nickel).



Sooty blotch (dark blotchy lesions) and flyspeck (small round black spots clustered) are cosmetic diseases, but decrease fruit quality and shortens fruit storage life. Photo: Kari Peter, Penn State

For commercial fruit growers, please note: When controlling for disease, weather and tree growth conditions need to be monitored at a local level within one's own orchard. To assist with management decisions (especially infection events), growers can use <u>the NEWA website</u>, which has weather stations all over New York. Before chemical products are applied, be sure to comply by obtaining the current usage regulations and examining the product label. Product information can be easily obtained <u>from CDMS</u> or <u>Agrian</u>.

This article has been republished with the author's permission. The original article can be found at the following link: <u>https://</u> <u>extension.psu.edu/2021-disease-update-bitter-rot-</u> <u>management-begins</u>

# **New York Farm Directory Launching**

The Department of Agriculture and Markets is preparing to launch a new online Farm Directory. This is an exciting tool to connect consumers to producers of farm products across the state and help to strengthen the local food supply chain.

The Farm Directory will appear on the Department's website at <u>agriculture.ny.gov/farming/farm-directory</u> beginning the middle of June. It will show information for each listed farm, which can include the farm name, farm type, point of contact, addresses, telephone number, email address, website, social media, and a listing of all available products produced by the farm. Other categories of interest to the public, like the farm's inclusion in the New York State Grown & Certified Program and designations of Organic, Halal, or Kosher certified may also be noted. Public users will be able to sort or search by any field.

The Department understands that not every farm offers products to the public at the farm site, so each farm can indicate whether it is open to the public, or if there is another means that their farm product can be accessed. This might include listing a distributor, a brand name that your product is eventually marketed under, or a specific consumer-facing website where the public can determine where to purchase your product in a retail location. The information available on the directory for each farm can be tailored to meet the individual needs of each business, and farmers will be able to update their information as desired.

The creation of the Farm Directory derives from Section 16(52) of the New York State Agriculture and Markets Law, first passed during the 2021 state legislative session and amended in February 2022. It requires the Department to create a directory of every farm in New York State. The purpose of the Directory, stated in the law, is to allow entities to access available products grown in New York State, strengthening New York agriculture and supporting the environment, communities, small businesses, and local economies.

Farms will be receiving a package in the mail shortly outlining the Farm Directory purpose, a survey to collect information on the farm to be included in the Directory, and a return envelope.

Those who choose not to participate in the Directory **must** notify the Department of this decision by opting out, as required by law. Farms may do this by returning the provided survey or indicating it through the online survey linked at the website above.

Farms that initially opt out can later contact the Department if they wish to be included at any point. Also, farms can also contact the Department if they wish to opt out after initially choosing to participate in the Directory.

For questions or additional information on the Farm Directory, please contact the Department at (518) 485-1050 or FarmDirectory@agriculture.ny.gov.

# Meet ENYCHP's New Hudson Valley Research Technician: Kait McNamee

Kait McNamee is an agricultural educator from Denver, Colorado. Her experience ranges from industry to academia, but her passion is working directly with growers to help them achieve their goals. Prior to CCE, Kait worked for USDA's APHIS-Plant Protection & Quarantine, where she tracked pests across various Western states. Kait holds a BA and MA in writing, with a focus on research & technical writing, and she completed the University of Vermont's Farmer Training Program in 2018.

At CCE, Kait is working with tree fruit in the Hudson Valley, collaborating with Dan Donahue on orchardfocused projects and trials, trapping and monitoring pests, and assisting Ag Business Specialists with communications research relevant to plain communities in New York State. Welcome to the team Kait!

#### We Want Your Wooly Apple Aphids

Gennaro Fazio, USDA ARS

The Apple Rootstock Breeding Program in Geneva, NY is collaborating with a network of U.S. scientists to collect and DNA fingerprint Woolly Apple Aphids (WAAs) throughout the U.S.A. We need to collect material all over the state of New York. If you see WAAs on your farm can you please send a quick email to Gennaro Fazio at gf35@cornell.edu? Our intention is to come and collect some and preserve it for DNA extraction. Thank you!

#### Looking for Fire Blight Samples

Members of the Cox lab are collecting fire blight samples from across New York state and New England. The testing is completely free, we will confirm that the sample is fire blight, and test it for resistance to streptomycin. If you see fire blight at any point during this season, you can send it in for resistance testing. Contact either Isabella Yannuzzi <u>imy3@cornell.edu</u>, Mike Basedow <u>mrb254@cornell.edu</u> or Dan Do-nahue <u>djd13@cornell.edu</u> for assistance.

The sample submission form is available here:<u>https://docs.google.com/forms/d/</u> e/1FAIpQLScoDppop7qrSB4nzT0t4KsyxpNmKzPovhhhpEW5aV6YNmPj7g/viewform?usp=sf\_link



# Where is fire blight in New York & New England? Submit fire blight infected trees and strikes for testing

Samples are tested for fire blight bacteria, streptomycin resistance, and strain. Testing is completely free and we will get back to you with the result of your sample as quickly as we can.

Contact any of the people below to help you collect samples and take data:

Isabella Magna Yannuzzi, imy3@cornell.edu Cornell Agritech (Receiving lab)

Kerik Cox, 315-787-2401, kdc33@cornell.edu Cornell Agritech (Receiving lab)

Janet VanZoeren, 585-797-8368, jev67@cornell.edu CCE LOFT, Orleans Office

Dan Donahue, 518-322-7812, djd13@cornell.edu CCE ENYCHP, Hudson Valley Lab

Mike Basedow, 518-410-6823, mrb254@cornell.edu CCE ENYCHP, Champlain Valley

#### Samples should be mailed to:

Kerik Cox Cornell AgriTech 15 Castle Creek Dr. Geneva, NY 14456

#### Instructions:

It is only possible to isolate the bacteria (*Erwinia amylovora*) from fresh, active lesions, where healthy tissue meets the diseased tissue. i.e. the lesion margin.

#### Sampling the Lesion Margin

- ✓ Collect samples that include about 3 inches of healthy tissue beyond the infected tissue, and include about 3 inches of infected tissue. Do not submit the entire dead branch of the strike, this is often too long and can be cut back, as described. Do not collect entire branches or trees unless symptoms are unusual.
- ✓ Protect samples from drying out prior to submitting them. If possible, refrigerate them. It is impossible to isolate fire blight bacteria from dead, dried out tissue.
- ✓ If possible collect samples with visible ooze, this includes leaves, fruits, and shoots!



# **Cornell Cooperative Extension**

Eastern NY Commercial Horticulture Program

# Getting the Most Out of Every Pass Calibrating Airblast Sprayers for Best Results

George Hamilton, University of New Hampshire Extension Field Specialist Emeritus, will demonstrate the importance of and best techniques to calibrate air blast sprayers. Proper calibration will ensure effective, efficient, economical and legal spraying. Inadequate spray coverage is usually the cause of poor spray efficacy and additional spray applications. Overuse of some sprays results in unhealthy residues and can lead to fines.

Calibration should be done several times each season, or when you incorporate any new equipment or repairs – from the tractor to the nozzle. Join us for a refresher or send new employees for training. This workshop is open for any grower that relies on an airblast sprayer to deliver plant protectants to fruit or vegetable crops.

Cornell Cooperative Extension is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities.

#### Wednesday, June 29

3:00 pm – 5:00 pm Whitecliff Vineyard, 331 Mckinstry Rd, Gardiner, NY 12525.

### OR

Thursday, June 30 3:00 pm – 5:00 pm Rulf's Orchard, 531 Bear Swamp Road, Peru, NY 12972

# \$20 per farm—Pre-registration is Required (Please list each person attending so that we have a proper count...space is limited)

# 2.0 DEC credits available in 10, 1A, 22, and 23

### Agenda

3:00 pm – Welcome and Introductions
3:10 pm – Why are you Spraying and Benefits of Calibrating
3:20 pm - Calibration Factors Affecting Application Rate
3:35 pm - Pre-Calibration
3:45 pm - Sprayer Maintenance
4:00 pm - Calibration Notes
4:10 pm – Calibration Demonstration (water sensitive paper deployment exercise included)
4:30 pm – How to evaluate success – Understand deposition
4:55 pm – Q&A
5:00 pm - Adjourn

# Register Here: https://bit.ly/calibratingairblastsprayers

# Peru Weed Management and Soil Health Field Day

#### July 20, 2022 1:00pm-4:00pm EDT The 'Don G' Orchard Block 333 Route 22B, Peru, NY

Join us in Peru on July 20th as we discuss orchard weed and soil management!

Speakers will be joining us from across Cornell's research and extension teams. Topics will include the results of our preemergent herbicide timing trials, new vision-guided technologies for orchard weed spraying, organic weed management options, soil health demonstrations, and a discussion on our statewide orchard soil health survey. **1.5 DEC credits are available in categories 1A, 10, and 22 for this event.** Please contact Mike with any questions: <u>mrb254@cornell.edu</u> or 518-410-6823

#### Agenda

1:00 - 1:10 pm Welcome & Introductions

1:10 – 1:40 pm Peru herbicide trials - efficacy, tree damage, soil health (Mike Basedow, CCE ENYCHP) 1:40 – 2:10 pm Vision guided herbicide spraying and weed management technologies (Dr. Lynn Sosnoskie, Cornell University)

2:10 – 2:40 pm Organic orchard management trial results (Dr. Greg Peck, Cornell University)

 2:40 – 3:10pm
 Soil health demos and CASH test (Dr. Deborah Aller, Cornell Soil Health Program)

 3:10 – 4:00pm
 Statewide soil health survey result discussion (Mike, Greg, Deborah)

Register Here: https://bit.ly/PeruWeedManagement



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The Eastern New York Commercial Horticulture Program is a Cornell Cooperative Extension partnership between Cornell University and the CCE Associations in these seventeen counties: Albany, Clinton, Columbia, Dutchess, Essex, Fulton, Greene, Orange, Montgomery, Putnam, Rensselaer, Saratoga, Schenectady, Schoharie, Ulster, Warren & Washington.

# In Case You Missed It: New Recordings, Online Courses, and Online Materials

#### Michael Basedow, CCE ENYCHP

If you haven't been on the <u>ENYCHP YouTube page</u> in a while, I recommend giving it a look through. We've added all the recordings from our thinning meetings, including the Rescue Thinning meeting we held for the Capital Region on June 1<sup>st</sup>. In which Terence discussed options for rescue thinning, along with his new return bloom spray program with Ethrel.

We also have recordings from our "What's new in crop load management?" webinar available at the following link. In which, Dr. Polianna Francescatto and Dr. Anna Wallis discuss Accede, a new thinner out from Valent that can be used for rescue thinning. While this product is now registered in New York, it is not yet for sale commercially, but should be within the next year or two. More info available here: <u>https://www.youtube.com/watch?</u> <u>v=UDxEaQDkU04&list=PLk2Q-bw9Aiu6PXq-obah0nVqh8h8J3CcV</u>

We've also got the recording of Dr. Kerik Cox's talk on biological materials for fire blight management here: <u>https://www.youtube.com/watch?v=N0PrdYyShok&t=137s</u>

We cohosted a number of webinars in association with the Northeast Fruit Consortium this winter. Those recordings are available on the UMass Extension Fruit Team YouTube channel here: <u>https://www.youtube.com/watch?</u> <u>v=hBjdq\_luvbc&list=PLr5-TRBPQxrGKIIxCGCr2ZQujumtZPQRE</u>

The Northeast Cider Apple Project webinar can be viewed here: https://www.youtube.com/watch?v=9TnRk-kN1VI

The "Pruning Guide for Precision Crop Load Management" video is available on the LOFP YouTube channel in both <u>English</u> and with <u>Spanish</u> subtitles.

If you have employees that are interested in getting their private pesticide applicator certification, but aren't sure where to start the process, they might want to enroll in our online certification training course. This course includes recorded lectures and practice exams, and walks through what you need to do to sign up for the exam, some of the core material, and strategies for the category exam. It is available for \$5 for ENYCHP enrolled farms at the following link: <a href="https://cce-enychp.teachable.com/p/pesticide-certification-exam-prep-course">https://cce-enychp.teachable.com/p/pesticide-certification-exam-prep-course</a>

Finally, we are also in the process of updating the Cornell Tree Fruit Resources website. The link to that is available here. <u>https://blogs.cornell.edu/treefruit/</u> If you have any recommendations on how we can improve this page, or any of our other online programming, please reach out to me at <u>mrb254@cornell.edu</u> or at 518 410 6823.