Cornell Cooperative Extension | Eastern NY Commercial Horticulture Program

VOLUME 7, ISSUE 5
MAY 2019

# BERRY NEWS

## Berry 'To Do' List

### —ALL CROPS—

Virtually all areas in the eastern NY region are well behind the average in Growing Degree Days—over 100 behind from last season and well above the average in rainfall. A few areas have had the dubious distinction of setting the record for longest streak of rainy weather—almost 3 weeks of straight rain. This scenario makes disease management extremely challenging. The Memorial Day weekend brought a nice drying wind and the weekend prior to that saw temperatures in the 80's, so summer is coming!

### —STRAWBERRIES—

- ***Strawberry mid-season varieties beginning to bloom in all but the northern areas.*** Ripe fruit in high tunnels, green fruit sizing very well. Picking should commence in southernmost regions by the first weekend of June.
- ***Frost possibilities are limited***, but since many people are growing late and very late varieties, keep monitoring the weather.

*Photo: hightunnels.org*

*(Continued on page 2)*

## Table of Contents

(Continued from page 1)

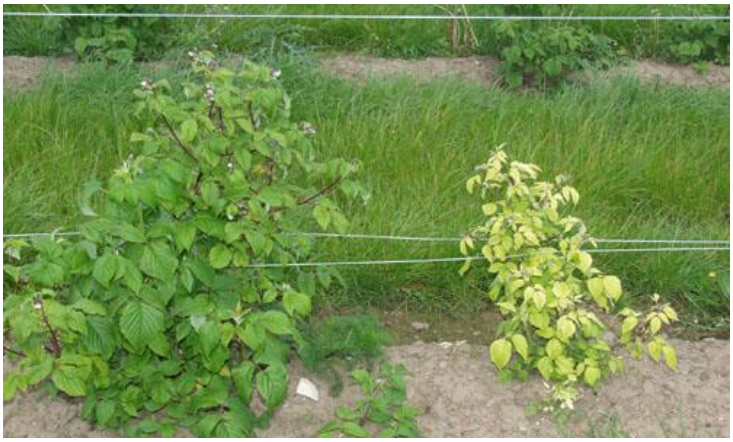
- ***Scout for strawberry clipper and tarnished plant bug***. I've seen very little evidence of these insects so far this season, but now is the time to be looking for them.
- ***Anthracnose on strawberries that were under row cover.*** I haven't seen anthracnose in plantings in the field that were not covered. They are having a big problem in PA (see the article in this issue).
- ***Look for angular leaf spot***. Small, water-soaked spots appear on lower leaf surfaces. These enlarge to form angular spots usually bordered by small veins. The spots appear translucent when held up to the light bit are dark green under reflected light. Calyxes may also become infected. The disease is favored by moderate to low day time temperatures (68°F) along with low to near freezing nighttime temperatures and precipitation events such as rain, overhead irrigation or heavy dews. Kocide 3000, Badge SC, and Rendition are labelled for conventional use. Cueva, Double Nickel 55, or LC and Badge $X_2$ are labelled for organic production.
- ***Planting done as weather allows.*** Plan on applying Devrinol at 5 lb/A. You should wait until mid-June (theoretically a few weeks post-planting), then cultivate and apply. Irrigate after application.

## —Blueberries—

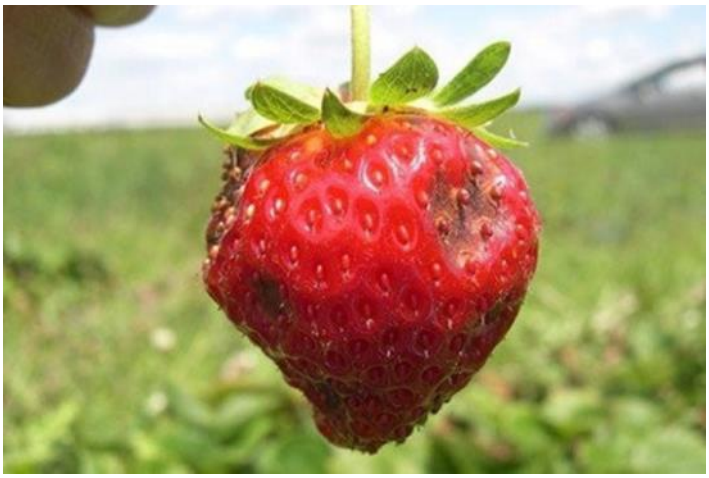
- ***Continue with bloom sprays for Mummyberry, Botrytis blossom and twig blight, Anthracnose fruit rot, and Blueberry leaf rust.*** There has been a significant uptick in mummyberry shoot strikes this season. Locations impacted seem to be on the eastern edge of our region. There are several fungicides that are labelled for most of these diseases—Captevate, Switch, Abound are a few. For a complete mummyberry spray recommendation, see the article in this edition of the newsletter.
- ***Prepare for N applications in May and again in early June.*** For specifics, see the nutrition article in the last issue.
- ***Petal fall sprays for cranberry fruit and/or cherry fruit worm.*** We saw lots of damage from this pest last season in several plantings. There are many different labelled insecticides that provide protection. Two sprays are often required for adequate control; the first should be applied at petal fall and the second, 10 days later, about 2 weeks before harvest.

## —Brambles—

- ***Uneven budbreak*** in floricanes seems to be levelling out to show just a ***small amount of winter damage—mostly at the tips.*** We might see some collapse of borderline canes when hot weather arrives. Bloom on some early floricanes in the south. ***Primocane growth*** is over 18" in some areas. This is the stage that you could thin out primocanes to help insure good growth in those canes that remain.
- As leaf tissue expands, watch for ***orange rust on blackberries and black raspberries*** and rogue out plants where it is found. I've seen more infections this year than I've seen in the last 10 years combined. Orange rust is systemic and cannot be treated to eliminate it from an infected plant. Now is one of the key times for infection on new growth.
- ***Early pre-bloom sprays for Gray Mold and Powdery Mildew*** would be wise given the weather.
- Some reports of ***Tomato Ring Spot Virus*** and possible ***Bushy Dwarf Virus*** in raspberries. More on this in future issues. ■



*Raspberry bushy dwarf virus.*
*Photo: www.fruitdisease.co.uk/VirusResearchPage2.asp*



## Anthracnose on Strawberry Fruit

***Source: May 15, 2019—Penn State Extension***

Anthracnose is caused by fungi in the genus *Colletotrichum*, and has been affecting mostly plasticulture plantings, but also matted-row plantings of susceptible cultivars. Some strawberry growers in southeastern PA have already been finding their green fruit to be infected with anthracnose this year, despite cool, wet conditions that would more typically be associated instead with botrytis, our other major strawberry disease. This article attempts to answer some common grower questions regarding anthracnose fruit rot, and how to best manage it.

*Symptoms of advanced fruit anthracnose. Note orange color especially around seeds in infected areas.*
*Photo: Kathy Demchak, Penn State Extension*

(Continued on page 3)

(Continued from page 2)

**Symptoms**

Berry flowers may be blighted, though this is difficult to tell apart from blossoms blighted by botrytis. Affected berry caps and leaves may show brown or black spots with irregular margins (i.e., spots won't be perfectly round like with common leaf spot of leaf scorch in early stages), and runners and petioles may show oval to elongated lesions that are brown or black. Tiny orange masses or spores may develop close to the center of these lesions under favorable conditions. Mostly growers notice symptoms on fruit, which may first show up as hard brown lesions when the fruit is green. Seeds may be blackened. Early symptoms on ripe fruit appear as small sunken areas without much color. As the disease progresses and fruit ripens, fruit lesions become sunken and brown, and then an orange coloration develops in the sunken area as spores are produced.

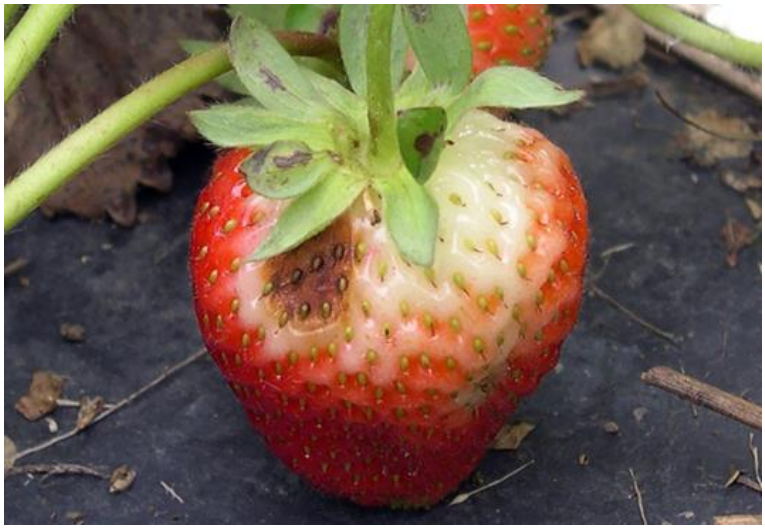
*Anthracnose causing blight of strawberry blossoms.*
*Photo: Dr. Tim Elkner, Penn State Extension.*

**Where does anthracnose come from?**

In most, but not all cases, it appears that nurseries are the primary source of the disease, especially for plug plants, but this doesn't mean that the problems originated with the plug propagator. Plant material used for plug plants sometimes takes a maze-like route through a few states and provinces before finally arriving at a propagator's greenhouse, and then at the grower's farm. At this stage, the fungi that cause anthracnose may co-exist within the strawberry plant tissue without causing any symptoms at all (referred to as quiescent or latent infections), until the fungus senses that conditions are right for sporulation. For us in the eastern U.S., this means moisture and high humidity, and moderate to warm temperatures (though this spring, we haven't had those yet). When sugar level rises as strawberry fruit ripen, the fungus can easily infect and develop lesions on the fruit. Add to that splashing water from rain on plastic that bounces slimy spores around, and suddenly a large proportion of the fruit becomes infected.

*Anthracnose causing blackening of green fruit and blossom blight.*
*Photo: Dr. Tim Elkner, Penn State Extension*

Although anthracnose needs plant tissue to survive, if badly infected fruit that dried up and mummified are in the field, the anthracnose fungus can survive on those fruit until they completely decompose, which can take a year or two.



*Anthracnose lesion on ripening 'Albion' fruit. Note irregular brown spots on the cap. Photo: Kathy Demchak, Penn State Extension*

***C. acutatum* and *C. gleosporoides* "complexes" - What does this mean?**

With technology improvements, it comes a better understanding of the genetics of plant diseases, and there is a lot more genetic diversity in anthracnose fungi than was known (or perhaps, than we had hoped). What had been diagnosed in the past as anthracnose fruit rot or anthracnose crown rot, and was thought to be caused by one of two *Colletotrichum* species, was likely caused by other closely -related species that are similar in appearance to these two species.

*Sunken area caused by anthracnose fruit rot on 'Monterey' fruit before the development of orange spore masses.*
*Photo: Kathy Demchak, Penn State Extension*

(Continued on page 4)

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Species in both of these groups can affect a variety of plants including weeds, so could move to or from other susceptible plants in the surrounding environment.

To help sort this out, this summer, a project is underway at the University of Maryland in collaboration with Penn State and Virginia Tech extension, to better understand which anthracnose species are present in mid-Atlantic strawberry fields. Samples are being tested from Maryland, Pennsylvania, and Virginia. While not every sample can be tested, we are attempting to assemble a representative set of samples from across the region that will give us a better handle on the situation. The primary goal is to understand the distribution, prevalence, and potential cultivar specificity of each *Colletotrichum* species in the mid-Atlantic states.

**How much fungicide resistance is 'out there'?**

While resistance to some strobilurin (aka QoI) fungicides has been documented in anthracnose, the constantly wet conditions for over a year probably diminished fungicide coverage and effectiveness on grower and nursery farms, causing plenty of inoculum to be present. Spray recommendations have been changed somewhat to minimize resistance development while still obtaining reasonable control (see below) and will continue to be modified as newer materials and information about anthracnose becomes available. It's also possible that some of the related species discussed in the paragraph above may never have been sensitive to certain fungicides in the first place, rather than developing resistance to them.

**Minimize anthracnose with cultural methods**

Any cultural method that minimizes rain splash will help, such as using straw mulch along the edges of and between the rows and plants, including in plasticulture. Only a few varieties have significant resistance to anthracnose – 'Flavorfest' is less susceptible than 'Chandler.' 'Sweet Charlie' is somewhat resistant also, but its yields are quite low. Day-neutral varieties are typically very susceptible. Inoculum can be moved around on the equipment and harvester's hands, so it makes sense to work in less badly affected areas ahead of those where the disease is worse. Low tunnels decrease anthracnose incidence greatly, and high tunnels essentially eliminate fruit symptoms even without the use of fungicides and thus may be especially useful for organic growers.

**How should my spray program for anthracnose look?**

Current recommendations for 2019 are in the Mid-Atlantic Vegetable Production Guide in the section entitled "Strawberries." The spray program recommends keeping a non-systemic protectant (captan) on the plants at the maximum labeled rate ahead of symptom development, starting at 10% bloom and then applying every 7 to 10 days, though wet periods may require shortening the interval. This allows eight applications of captan during the course of a year.

During periods of highest disease pressure, add a group 11 fungicide labeled for strawberries (for example, Abound, Evito or Aftershock, or Cabrio), or better yet, a fungicide that is a combination of group 11 and group 3 (examples are Quadris Top or Quilt Xcel), or group 11 combined with group 7 (such as Luna Sensation, Merivon or Pristine) ingredients to the tank with captan for a maximum of two sequential applications or preferably, two total during the season. Switch (with active ingredients in groups 9 and 12) can be added to captan in the same way but is also limited to two sequential applications during a season. Pre-harvest and re-entry intervals for these products are relatively short but vary, so be sure to check product label information.

There is a disease forecasting system available for anthracnose that is currently being tested in the mid-Atlantic region, SAS – Strawberry Advisory System, testing led by Dr. Mengjun Hu at the University of Maryland, developed by Dr. Natalia Peres at the University of Florida. And there's another in development for the NEWA system based on data from Dr. Mike Ellis, Ohio State University and Dr. Natalia Peres, University of Florida; development led by Dr. Kerik Cox and Dr. Julie Carroll at Cornell University. However, if the weather continues to be as wet as it's been so far this year, keeping fungicides on the plants will be a challenge, and growers may just need to make fungicide applications whenever soil conditions allow access to the field.

**Additional Information:**

Cannon, P.F., U. Damm, P.R. Johnston, and B.S. Weir. 2012. *Colletotrichum* – Current Status and Future Directions. Studies in Mycology 73(1):181–213.

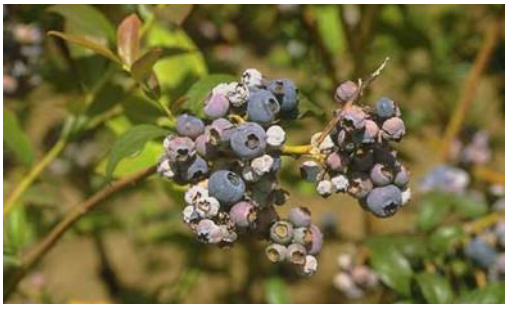
Smith, B.J., 1998. Anthracnose fruit rot (black spot). In: Compendium of Strawberry Diseases, 2nd ed. J.L. Maas, editor. American Phytopathological Soc. pp. 31-33.

Damm, U., P.F. Cannon, J.H.C. Woudenberg, and P.W. Crous. 2012. The *Colletotrichum acutatum* species complex. Studies in Mycology 73(1):37-113.

Weir, B.S., P.R. Johnston, and U. Damm. 2012. The *Colletotrichum gloeosporioides* species complex. Studies in Mycology 73(1):115-180.

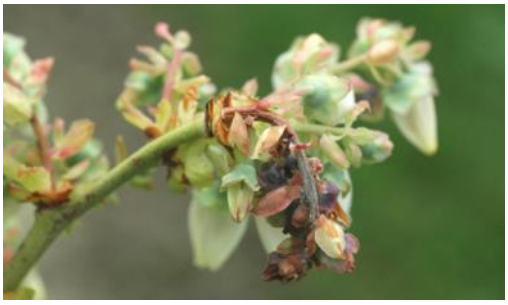
2019 Mid-Atlantic Commercial Vegetable Recommendations . C.A. Wyenandt and M.M.I. Van Vuuren, coordinators. Strawberries, pp. 329-341. ■

*Photo: Laura McDermott, CCE ENYCHP*

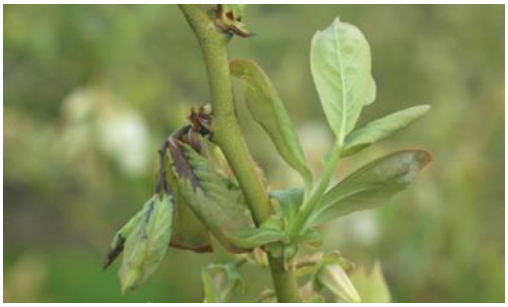


*Note the discolored and drying fruit that will soon fall to the ground.*

*Mummified blueberries and brown apothecia are ready to discharge ascospores.*



*Primary symptoms of mummy berry on a floral cluster.*



*Primary symptoms of mummy berry on a developing shoot.*

*Infected green berries show no symptoms unless they are cut open. The fungus begins to fill the carpels of the infected berry on the left while seeds form in the healthy berry on the right.*

*Photos by Jay W. Pscheidt and Haywood Photography*

# Mummy Berry Management

***Source: Pacific Northwest Plant Disease Management Handbook; edited for NY growers by Laura McDermott, CCE ENYCHP***

**Cause**

The fungus *Monilinia vaccinii-corymbosi* overwinters in mummified fruit (pseudosclerotia) on the ground. Mummies can survive for at least 2 years and maybe more. Often mummified fruit becomes caught between the stems of a single plant near the ground. Mummies have a chilling requirement of many hours below 45°F. In early spring, when the temperature rises above 45°F, about the time floral and vegetative buds begin to break, fungal fruiting cups (apothecia) grow from overwintering mummies in or near the soil surface. Apothecia mature over an average period of 17 days but can range from 10 to 28 days. Many apothecia can emerge from just one mummy. Soil temperature, soil moisture, and solar radiation were identified as the most important factors influencing ascospore release in the PNW.

Ascospores (primary inoculum) from apothecia are wind dispersed 100 feet or more and infect flowers and leaves shortly after buds open. A second type of spore (conidia or secondary inoculum) is produced in about 3 weeks on blighted flowers and shoots. These spores are spread by wind, rain, and various insect pollinators to healthy flowers. Flowers are most susceptible just as they open and infections lead to the mummy berry symptom. Flowers that are already pollinated are less susceptible to infection.

The potential for loss is greater for primary infection because a single infection can blight all the flowers of one cluster. The losses from secondary infection can also be significant but the potential is less because only one berry is lost from each infection.

Infected, sporulating shoots become ultraviolet reflective, fragrant and secrete sugars all of which attract insect pollinators. Insects then move conidia from these infected shoots to healthy flowers increasing the number of infected berries.

All species of *Vaccinium* are infected by species of *Monilinia* causing a mummy berry-like disease in each. Each species, however, is highly specialized to its host and therefore cannot induce disease in other hosts. For example, the fungal species attacking red huckleberry cannot attack highbush blueberry and vice versa.

The blueberry cultivars Bluejay, Bluetta, and Olympia are considered resistant to both phases of the disease while the cultivars Blueray, Berkeley, Earliblue, and Northland are considered very susceptible.

**Symptoms**

Infected flowers turn brown and wither, as if they had been frosted. Stems and shoots turn dark-brown with the necrosis extending into leaf petioles and slightly into the base of leaf blades. Shoots quickly collapse and die soon after. About 3 weeks after primary infection, a brownish gray mass of spores develops on blighted flower stalks and leaves.

During early berry development, diseased fruits look like healthy ones; if cut open; however, the spongy white fungal growth can be seen within the carpels. As berries approach maturity, infected berries become a reddish buff or tan color in contrast to the waxy green of healthy fruits. Many of the diseased berries fall before healthy berries are harvested. Mature mummified berries are gray, shriveled, and hard.

Apothecia can be found under bushes where leaf debris or mulch has been left undisturbed. In spring, before bloom urn-shaped apothecia emerge from the mummies and are light brown to brown. The tip of the stem is darker and eventually expands into a cup-shaped structure 0.1 to 0.4 inch wide.

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**Cultural control**

Control tactics applied to the soil may need to be repeated often since apothecia develop and mature over a period of several weeks.

In fall, before leaf drop, shallowly cultivate to bury mummies. Research in Georgia indicates that burying mummies 1 inch or more below the soil prevented apothecia from reaching the surface.

A two-inch layer of Douglas-fir sawdust applied anytime in the dormant season prevents apothecial emergence.

In early spring between budbreak and bloom, destroy developing apothecia by disrupting the soil under plants and/or in alleyways by raking or cultivating soil. Some growers cultivate to pile soil from between the rows at the base of the bushes and between the bushes in order to bury the mummies. They rake soil back into the rows later in spring after apothecia are gone. Other growers drag chains along the ground to disrupt the developing apothecia. Flaming may also be useful.

- Harvest and destroy mummified fruit from bushes before they drop to the ground. This practice may take several years before a benefit can be realized.
- Remove and destroy plant debris that builds up on harvester machines before moving to a new field.
- Also in spring, destroy any cull piles near packing houses.
- Plant resistant cultivars. Select matching, cross-pollinizing cultivars with synchronized bloom periods so pollination can occur quickly.
- Remove susceptible cultivars such as Berkeley from mixed plantings.
- Good weed control aids cultural measures.

**Organic control**

Control of mummy berry is difficult using organic tactics. Sulfur or copper-based materials have not resulted in effective protection of new flowers and shoots. Organic growers should then focus on reduction of overwintering inoculum. Scouting and aggressive removal of even the smallest amount of mummy berry during and after harvest can be effective in new plantings that do not yet exhibit much disease. Growers with small acreage should focus on removal of as many mummies as possible at and after harvest combined with aggressive disruption of developing apothecia in the spring. Efforts need to be 99.9% effective to have significant impact on this disease.

**Chemical control**

Application of the herbicides diuron or simazine have been shown to affect the development and sporulation of apothecia. These herbicides may be beneficial when used close to apothecia development in the spring. Consult the PNW Weed Management Handbook for specific recommendations.

Lime Sulfur at 8 gal/100 gal water directed to the soil surface to destroy apothecia. Overall effectiveness is questionable as apothecia have been observed to survive application with viable ascospores.

Protect blossoms and foliage with fungicide from floral bud break to end of flowering. From a farm-wide perspective, start when the earliest cultivars break bud. With regular scouting, the first application can be timed to coincide with apothecial development. Tank-mix and/or alternate products from different groups with different modes of action to prevent the build-up of resistant fungi. Group 3 fungicides have a high risk of resistance development.

- **Abound** at 6 to 15.5 fl oz/A. Do not apply with silicone-based surfactants. May be applied on the day of harvest. Group 11 fungicide. 4-hr reentry.
- **Bonide Captan 50 WP** at 1 to 2 Tbsp/gal water can be used in home gardens. H
- **Captan 80 WDG** at 1.25 to 3 lb/A plus spreader-sticker can only be used starting at mid bloom but may be applied up to day of harvest. Moderate control of both primary and secondary stages. Group M4 fungicide. 48-hr reentry.
- **CaptEvate 68 WDG** at 4.7 lb/A Can be used day of harvest. Group 17 + M4 fungicide. 48-hr reentry.
- **Indar 2F** at 6 fl oz/A plus a wetting agent. Make reapplication on shortest interval allowed on the label. Do not use within 30 days of harvest. Group 3 fungicide. 12-hr reentry.
- **Inspire Super** at 16 to 20 fl oz/A. Do not apply within 7 days of harvest. Group 3 + 9 fungicide. 12-hr reentry.
- **Pristine** at 18.5 to 23 oz/A. Do not use with any other tank additive except Captan. Can be used day of harvest. Group 7 + 11 fungicide. 12-hr reentry.
- **Propiconazole-based fungicides** (Propi-Max and Tilt) are registered. Do not use within 30 days of harvest. Use of propiconazole for mummy berry control has been associated with an increase in Botrytis severity. Group 3 fungicides. 12-hr reentry. **PropiMax EC** at 6 fl oz/A, **Tilt** at 6 fl oz/A.
- **Quash** at 2.5 oz/A. Particularly useful when used just before bloom. Do not use within 7 days of harvest. Excellent control. Group 3 fungicide. 12-hr reentry.
- **QuiltXcel** at 14 to 21 fl oz/A. Do not use within 30 days of harvest. Sprayers should not be used on apples. Group 3 + 11 fungicide. 12-hr reentry.
- **Switch 62.5 WG** at 11 to 14 oz/A. In western Oregon in 2004, it was not effective on any stage of the disease. May be used up to and including the day of harvest. Group 9 + 12 fungicide. 12-hr reentry.
- **Ziram 76 DF** at 3 lb/A. Do not apply after 3 weeks from full bloom. Poor control of both primary and secondary stages. Group M3 fungicide. 48-hr reentry.

**Note:** Some registered products offer only suppression of this disease and thus are not recommended for use. These products include Bravo Weather Stik, DoubleNickel 55, Echo, and Fontelis.

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**Forecasting**

A forecasting program was developed in Nova Scotia, Canada on lowbush blueberry. The program uses leaf wetness and temperature during the wetness period to predict infection. For example, a low risk of infection occurs with 6 hours of wetness at 43°F or 50°F. Use in western Oregon has found that just about every rainy period during apothecial sporulation is found to be an infection period. Dr. Kerik Cox and Dr. Juliet Carrol are working to validate a mummy berry model for NYS growers.

**Biological control**

- **Actinovate AG** (Streptomyces lydicus strain WYEC 108) at 3 to 12 oz/A plus a spreader-sticker. Do not mix with Regalia. Highest rate was moderately effective in western Oregon. Has been effective only on the primary phase of this disease so use before bloom and when temperature is above 45°F. 1-hr reentry.
- **Botector** (Aureobasidium pullulans strains DSM 14940 and 14941) at 5 to 10 oz/A depending on water volume. Can be applied day of harvest. Was effective in one western Oregon test at low disease pressure. 4-hr reentry. **Note – the NYS label does not list mummy berry as a disease that is controlled by this pesticide. It does list several other fungi and is legal for control of those on blueberry.*
- **BotryStop** (Urocladium oudemansii U3 strain) at 2 to 4 lb/A. Keep refrigerated before use. Compatible with many wetting agents, some fungicides and biologicals but not all. Unknown efficacy in the PNW. 4-hr reentry. *This does have a NYS label for mummy berry.
- **Serenade ASO** (Bacillus subtilis strain QST 713) at 2 to 4 quarts/A. Active ingredient is a small protein. Serenade Garden Disease Control is available for home use. Although useful in Georgia on rabbiteyes, efficacy in the Pacific Northwest is low to none. 4-hr reentry.

**References**

Florence, J. and, Pscheidt, J. 2017. *Monilinia vaccinii-corymbosi* Apothecial Development Associated with Mulch Depth and Timing of Application. Plant Disease 101:807-814.

Harteveld, D.O.C., and Peever, T.L. 2018. Timing of susceptibility of highbush blueberry cultivars in northwestern Washington to *Monilinia vaccinii-corymbosi*, the cause of mummy berry. Plant Pathology 67:477-487. ■

## Winter Moth Update

***Laura McDermott, CCE ENYCHP***

Coastal Connecticut and Central Massachusetts have been the epi-center for winter moth infestations in the northeastern US for several years. Outbreak populations of winter moth have been successfully controlled in eastern Massachusetts, Maine and Rhode Island with the parasitoid Cyzenis albicans. Regular pheromone trap monitoring has documented the spread of winter moth to the western edge of both states, i.e. Stamford CT and North Adams, MA. Densities in these regions are low for the time being, however populations of the biocontrol organism are nowhere near where they need to be to control winter moth in these areas or in the Hudson Valley of New York.

Apples in particular, are a favored host. Apple growers should be on the lookout for high densities of little green inchworms (see photo), they should collect them while they are still available, and place them in a container with apple foliage and call Cooperative Extension asap. Arrangements will be made to confirm the species using DNA analysis. Biocontrol agents will be released next fall in identified populations.

For a great resource on Winter Moth and the Biocontrol that has proved effective, visit the following link: www.fs.fed.us/foresthealth/technology/pdfs/FHAAST-2018-03_Biology_Control_Winter-Moth.pdf ■

*Wintermoth Operophtera brumata*

*Fig.1*
Male Wintermoth

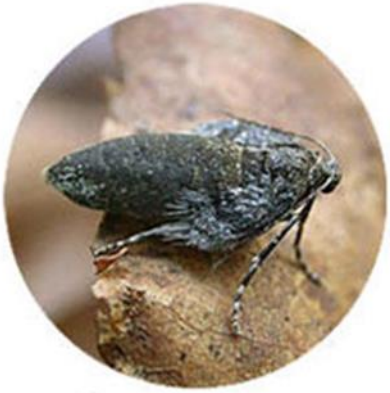

*Fig. 2*
Female Wintermoth

*Fig. 3*
Wintermoth Caterpillar

# Calendar of Events

**June 24 - Last Monday Grant Webinar for Fruit and Vegetable Growers**

The webinar will be limited to grants that are relevant to fruit and vegetable farmers in Eastern New York. More information and register at https://enych.cce.cornell.edu/events.php.

**July 15 – FSMA/PSA Grower Food Safety Training Course**
**CCE Warren County office, Schroon River Road, Warrensburg, NY**

A grower training course developed by the Produce Safety Alliance (PSA) that meets the regulatory requirements of the Food Safety Modernization Act (FSMA) Produce Safety Rule. This one-day training is a requirement for farms growing more than $25,000 worth of fruits and vegetables. Cost: $35/person. For more information, contact Elisabeth Hodgdon at eh528@cornell.edu or 518-650-5323. Register here: http://bit.ly/JulyFSMA

**July 29 - Last Monday Grant Webinar for Fruit and Vegetable Growers**

The webinar will be limited to grants that are relevant to fruit and vegetable farmers in Eastern New York. More information and register at https://enych.cce.cornell.edu/events.php.

**August 8 – VT Berry Growers Workshop**
**Sunshine Valley Berry Farm, 129 Ranger Rd, Rochester, VT—4pm-7pm**

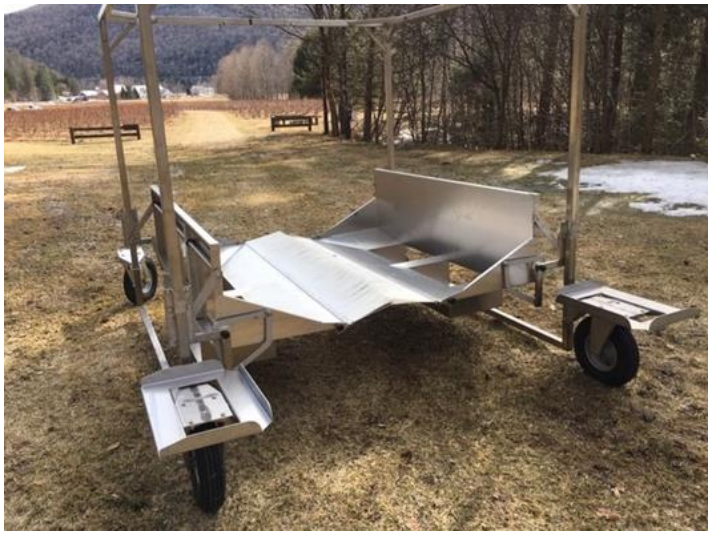

Photo courtesy of Rob Meadows of Sunshine Valley Berry Farm

Rob Meadows and Patricia Rydle invite you to a tour of their 6-acre PYO organic blueberry and raspberry farm. Come see, and possibly try out, their new Easy Harvester for blueberries. Rob will explain his laser and distress call systems for bird control, and we will see their farm store and cool room setup. The farm is open until 6 pm so please park so as not to compete with customers. Attendance is free for members of the Vermont Vegetable and Berry Growers Association. The cost is $10 per-person for non-members, payable on-site. Refreshments will be served. For more information: www.uvm.edu/vtvegandberry/meetings/2019VegandBerryFarmWorkshops4-16-19.pdf

**August 27 – Willsboro Farm Trial Field Day**
**Cornell Willsboro Farm, 48 Sayward Ln, Willsboro, NY—5pm-7pm**

Jud Reid (Cornell Vegetable Program, Harvest NY) and Elisabeth Hodgdon (ENYCHP) will lead a tour of high tunnel research projects, including insect exclusion netting demonstrations and variety trials for trellised cucumbers and new trellising systems and varieties of ground cherries and goldenberries. Participants will have the opportunity to taste test and provide feedback on ground cherry and goldenberry varieties. Registration information to follow.


## Berry Specialist
**Laura McDermott**
Phone: 518-791-5038
Email: lgm4@cornell.edu

## Business Specialist
**Liz Higgins**
Cell:518-949-3722
Email:emh56@cornell.edu

## ENYCHP Office
Chelsea Truehart
Phone: 518-746-2553
Email: ct478@cornell.edu



**Newsletter Design: Chelsea Truehart**
**Editor: Laura McDermott**

www.enych.cce.cornell.edu


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