Cornell Cooperative Extension

Eastern NY Commercial Horticulture Program

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First Late Blight in NY Teresa Rusinek, CCE ENYCHP

This past week late blight was confirmed on tomato transplants in Onondaga County New York. This particular isolate has not previously been observed so fungicide sensitivity and host preference is yet unknown but Cornell scientists are working on that right now. Until we know more about fungicide sensitivity, it is recommended that that products with the active ingredient mefenoxam should not be used. For organic growers, products containing copper have been most



effective in controlling late blight pathogen. Scout your tomato and potato fields often and carefully for any signs and contact any of us for confirmation.

For excellent photos to help you identify late blight visit these websites below managed by plant pathologist Dr. Meg McGrath of Cornell's Long Island Research & Extension Center

On tomatoes visit:

http://blogs.cornell.edu/livegpath/gallery/tomato/tomato-late-blight/

On potatoes visit:

http://blogs.cornell.edu/livegpath/gallery/potatoes/late-blight/

And this site shows photos of late blight 'imitators': <u>http://blogs.cornell.edu/</u> <u>livegpath/gallery/tomato/late-blight-imitators/</u>

ENYCHP Video of the Week: Benefits of Mulch Lifters

Now Available on our YouTube channel! Visit: <u>https://www.youtube.com/watch?</u> v=eXziyCCLmDA&t=2s



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CLICK HERE to sign up for ENCYP Text Alerts! See page 6 for more details!



Reports from the Fields Around Us Chuck Bornt, CCE ENYCHP

It's hard to believe that in one week we get two major disease reports – one being Late Blight from central NY and the other being Cucurbit Downy Mildew (CDM) in Maryland! I know late blight has been covered in another article this week so I'll turn my attention to the Cucurbit Downy Mildew report.

Cucurbit Downy Mildew



Figure 1: Downy mildew on cucumber. Note the yellow angular spots. These will eventually turn necrotic as seen near the center of the photo.



Figure 2: Downy mildew on the underside of a cucumber leaf. Here sporulation is visible to the naked eye in the lesion near the center of the photo.

As many of you know it is

not uncommon the last 7 or 8 years for CDM to show up, especially in cucumbers sometime in mid-July. However, this report from Maryland on June 15 is a bit alarming indeed. The good news is that it was caught very early on, but the fact of the matter is the disease is moving up the eastern coast with earlier reports in the year from North and South Carolina and Georgia. In looking for the silver lining, the good news is there are no reports out of Michigan or western NY indicating that the release of spores from the Canadian greenhouses hasn't happened yet. And more good news as the potential spread from the southern locations into our region is not likely according to the forecasting and weather trajectory reports. However, spores of this disease can move hundreds of miles in a short period of time. All cucubits are susceptible, but cucumbers seem to be the hardest hit and remember that they are susceptible at all stages from transplants to full grown, fruiting plants.

So what should you be doing? Scout, scout and do some more scouting and if you find something that doesn't look right, call one of the members of the CCE ENYCHP team to get it diagnosed ASAP. Focus the scouting on cucumbers as they seem to be the most susceptible and the majority of CDM reports from the south have all been on cucumbers. Look for pale yellow spots on the top of leaves, generally on the newer growth – flip those leaves over and look for a grayish fuzz on the undersides of those pale yellow spots. Next week look for the table of recommended fungicides for CDM.

Colorado Potato Beetle Potatoes, Tomatoes and Especially Eggplant

This week I've really seen the Colorado Potato Beetle (CPB) adults marching from their overwintering areas and into our fields, ramping up with lots and lots of eggs being laid and some of the earliest egg masses hatching. For me, if I want to know if I've got CPB the first place I will check is any eggplant that I have on the farm or my neighbor's eggplant as they seem to favor that crop above all else. The better you can time your insecticide applications with egg hatch, the better the control will be as larger larvae are often harder to kill.

Egg masses are generally pretty easy to spot – look for bright orange eggs laid in distinctive clusters of 20 - 40 on the underside of the leaves. Because the adults are moving in from hedgerows and other areas that are usually undisturbed, scout those edges that border those areas first as those are likely the first places eggs will be laid. Once several egg clusters have been found, flag them and continue to check them daily – depending on the weather they usually take about a week to hatch. Once they hatch, begin applying your first insecticides.

To reduce resistance and maximize your control follow these couple of rules:

If you used an in-furrow or seed piece application of a neonicotinoid (Group 4: Admire Pro, Tops MZ, Gaucho, Cruiser or Cruiser Maxx, Platinum) do not use a Group 4 insecticide for foliar control of CPB. There are other options that can be found in the table below.

 Most controls should be focused on very small larvae as larger larvae become more difficult to control. When possible, use the IRAC Group Codes given to you in the table to help choose the correct rotational materials.

Our goal is to expose only 1 generation out of every 4 generations on a farm to a particular class of chemistry. This can be achieved by only using a particular class of insecticides one time within a 2-year timeframe and aligning the applications based on whether or not in-furrow planting



Figure 1: Egg mass of Colorado Potato Beetle with first larvae just hatching. (Photo: Amy Ivy, CCE ENYCHP)

treatments/seed treatments were used and the maturity type of the potatoes being grown. For example, you might want to consider using Coragen as a foliar application if you used a one of the Group 4 neonicotinoid materials listed above as a seed piece or infurrow application for this generation and consider another family such as Radiant for the generation later this summer.

For a chart of conventional and organic spray options click this link. <u>https://rvpadmin.cce.cornell.edu/</u> <u>uploads/doc_687.pdf</u>

Sweet Corn Pest Update Teresa Rusinek, CCE ENYCHP

European Corn Borer (ECB) damage is showing up over the past week. A few fields I scouted had a significant amount of worms but most were well under control with one or two well timed sprays at tassel emergence. As a quick refresher, ECB overwinter in the field in stalks of corn plants and other host plants along field edges. There are two strains of ECB that may be present in New York. ECB NY or E strain produces two generations, one in June, the other in August. The second strain we see in some areas is ECB Iowa or Z that produces one generation in July.



ECB moths lay eggs in in scale-like mases on the undersides of leaves

ECB larvae bore into tassel stalk. Notice the dark head capsule as a way to distinguish it from other sweet corn lep pests. Larvae are ¾ inch long when fully developed.

This is Corn Ear Worm (CEW) found early in the season feeding in the tassel. I've seen several this past week, so keep an eye out. CEW will be larger than ECB and do not have the dark head capsule. Also note that Bt materials aren't as effective against CEW.

County	European Corn Borer - Z	European Corn Borer - E	Fall Armyworm	Western Bean Cutworm	Corn Earworm
Albany	2	1	0	0	0
Columbia	4	0	0	0	0
Ulster 1	10	14	0	0	4
Greene	4	3	х	х	х
Clinton 1	0	0	0	0	0
Clinton 2	1	0	0	0	0
Rensselaer	3	0	0	0	0
Washington	0	0	0	0	0
Fulton	0	1	0	0	0
Schoharie	1	0	0	0	0
Orange	0	0	0	0	5
Dutchess	3	4	0	0	0
Ulster 2	0	0	0	0	0
Ulster 3	2	23	0	0	0

Scout and Rogue Garlic Now for Botrytis Neck Rot and White Rot Ethan Grundberg, CCE ENYCHP

Hardneck garlic in the lower Hudson Valley has been producing scapes for a couple of weeks already and, especially with the hot and dry weather, upper leaves have begun to dry down naturally from the tips. This is an excellent time to scout fields for two nasty fungal pathogens of garlic: botrytis neck rot (Botrytis porri) and white rot (Sclerotium cepivorum).

Look for garlic plants that, instead of having gradual leaf dieback from the tip, have turned completely yellow. Carry a trowel or small spade with you to carefully dig the suspect bulb and surrounding soil. Under high soil moisture conditions and the right

of the pathogens.

VEG NEWS



Botrytis neck rot mycelial growth

White rot mycelial growth

White rot sclerotia: note the small, black, poppy seed sized balls along the middle of the forming shoulder of the bulb

extend below the bulb into the root zone (see

images). If there isn't much soil clinging to the rotting bulb, you may also see small dark balls sticking to the affected plant tissue. These balls are called sclerotia and

Botrytis neck rot mycelia are grayish, whereas white rot mycelia create a fluffy white marshmallowy mat that can

temperature, you may actually see the mycelial growth

allow both pathogens to survive in the soil without a host crop for many years.

If the right environmental conditions have passed and neither sclerotia nor mycelial growth are visible, often necks detach from the bulb when pulled by hand around the soil level. Whether or not sclerotia and mycelia are visible, affected plants should be carefully removed from the field and destroyed. Do NOT add infested plants to compost or cull piles.

For more information on botrytis neck rot management, see Dr. Meg McGrath's blog at <u>http://blogs.cornell.edu/</u> <u>livegpath/gallery/garlic/botrytis-neck-rot-aka-dry-rot-on-garlic/</u>. To read more about white rot, see the fact sheet developed by Crystal Stewart at <u>https://</u> rvpadmin.cce.cornell.edu/uploads/doc_480.pdf.



A: Leek moth. Look for long white windowpanes, split leaf open to find debris, frass and sometimes the caterpillar. The second generation will be showing up on onions soon.

B: Onion thrips. Smaller white markings on leaves than with leek moth. Check out Crystal's video from last week for tips on how to find the tiny thrips that can do so much damage.

C: European corn borer. At pre-tassel, older corn borer caterpillars (worms) will tunnel through leaves while still rolled up. Later, when leaves expand you can see a row of holes from the one tunnel! Younger larvae can't burrow all the way through and cause window pane damage by chewing only partly through leaf tissue, leaving a window pane of tissue behind.

D. Swede midge. Where's the broccoli? A blind head like this with healthy older leaves is a classic symptom of swede midge feeding on the growing point, the future head of broccoli. Distorted leaves and scarred tissue at the center of the plant are other clues.

E. Leafhopper. Tiny insects are hard to see but they cause this classic 'hopper burn'. Also found on beans and eggplant and other crops as well. By the time you see just this much damage, crop yield is already reduced.

F. Spinach leaf miner. Also feeds on chard and beets. Featured in our May 30 issue of Veg News.

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Document and Avoid Giant Hogweed Maire Ullrich, CCE ENYCHP

Photo source: NYSDE

Giant Hogweed is on the federal noxious weed list is becoming more commonly seen in NY. Normally its population expansion might not be noticed but it is toxic to humans. Contact with the weed can cause significant skin burns when combined with moisture and sunlight and blindness if you get plant sap in your eyes. It is most often found at field, road and wooded area edges.

Giant Hogweed is in the carrot

family and has a large umbrella-like flower. And, since the stem can grow to be over 14 ft. tall, it can tower above people.

Keeping the plant from self-sowing by removing the flower. Following with a Round-up application is and effective way to reduce plant populations and reoccurrence. If you have to contact the plant be extra cautious by cutting the plant after sunset, wearing protective clothing (preferably something disposable like a Tyvek suit), eyewear and washing anything that comes in contact with plant juices.

If you find Hogweed, you should report it to the DEC. The DEC is tracking its spread through NY. To report e-mail the DEC at <u>ghogweed@dec.ny.gov</u> or call the Giant Hogweed Hotline: 1-845-256-3111. Provide photos, detailed directions to the plant infestation and

estimate the number of plants.

Additional resources and pictures of similar plants for proper identification:

DEC Factsheet: <u>https://www.dec.ny.gov/docs/</u> lands_forests_pdf/ghfactnyseagrant.pdf

This season, CCE ENYCHP will be offering text updates straight to your phone! Being informed is the first step in the success of your farm! Our texts will get you the information you need in the fastest and most concise way possible!

Only the most important crop alerts will be sent ("Late Blight found in N.Columbia County", for example), and you can choose to receive updates on whichever commodities you wish-Vegetables, Berries, Grapes, or Ag. Business.



Ag. Business Alerts will include: funding opportunities, due dates for programs (ag district inclusion, tax deadlines, crop insurance etc...), & market opportunities (farmers markets looking for vendors, buyers looking for product)

CLICK HERETO SIGN UP FOR OUR CCE ENYCHP TEXT ALERTS!

https://mailchi.mp/7a7cc033546c/k24yc2ayt1



Upcoming Events

June/July 2018

20 Minute Ag Manager All webinars run from 12:00-12:30pm To register, go to <u>https://tinyurl.com/y9gfqbmx</u>.

June: Zoning and Land Use •June 19—NYS Ag Districts 101 •June 26—Using On-line Data and Maps to Assess a Property Remotely



<u>Previous 20 Minute Ag. Manager sessions area now available</u> on our ENYCHP YouTube—Learn the highlights in just 5 minutes!

FDA FOOD SAFET

MODERNIZATION ACT

June 28, 2018 - Garlic Twilight Meeting, 5pm-7pm

See various cultural techniques to minimize fusarium demonstrated on a field level, including black plastic and white plastic mulches compared to straw and bare ground. We will also have a discussion of allium leaf miner management!

Free event, Registration appreciated: https://enych.cce.cornell.edu/event.php?id=959

July 12, 2018 – FSMA Training

Cornell Cooperative Extension, Albany County – Voorheesville, NY. More information at <u>https://</u> <u>enych.cce.cornell.edu/event.php?id=951</u>

July 18, 2018 - New York Soil Health Summit

Empire State Plaza, Downtown Albany, NY. For more information at this time, contact David Wolfe (dww5@cornell.edu) or Aaron Ristow (ajr229@cornell.edu).

July 31st, 2018– Reduced Tillage in Organic Systems Field Day 9am—3pm Cornell Willsboro Research Farm, free and open to the public, for question s call Amy Ivy at 518-570-5991 or adi2@cornell.edu



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