

Cornell University Cooperative Extension

Eastern NY Commercial Horticulture Program

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Weekly Vegetable Update

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Regional Updates

North Country – Clinton, Essex, northern Warren and Washington Counties:

A few days of hot weather last week made tomatoes, corn and squash shoot up. Most growers report excellent growth in all crops. The sunny days really make a difference! It's easy to forget about asparagus now but try to keep weeds and asparagus beetle levels down to allow good growth to support next year's crop.

Onion thrips levels have been low in the cool, wet weather but may really take off now that more summer-like weather has finally arrived. Some growers use silver mulch to repel thrips. In our northern part of the region, when we have a cool, wet June like this one, there can be quite a difference in vigor. The photo to the right shows Ambition onions transplanted as seedlings on silver (left) and black (right) plastic mulch. Note the difference in size, leaf color and overall vigor. Warmer areas of the state may see some initial difference in a cold year but by harvest time the two treatments even out.



Downy mildew is showing up in some onion fields now. We don't usually get cucurbit downy mildew in our northeast corner of the state but it's getting closer so keep an eye out. Powdery mildew is just beginning in cucurbits. This is one fungal pathogen that likes humid, not rainy, weather which is just what we're getting now. Try to stay ahead of this one!

Capital District – Albany, Fulton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, southern Warren and

Washington Counties:

Vine crops are really taking off with the heat that we have been having, and the early diseases we were seeing on cucurbits are being outgrown. Growers are all getting on consistent preventative spray schedules for downy mildew, which helps clean up a variety of problems. Sweet corn is coming along nicely throughout the region. So far the successions seem to be cooperating, rather than coming in in bunches. Worm pressure



Root maggot in radishes. Image: CLS

has remained pretty low, giving growers a break on spraying.

Continued on next page

Serving the educational and research needs of the commercial small fruit, vegetable and tree fruit industries in Albany, Clinton, Columbia, Dutchess, Essex, Fulton, Greene, Montgomery, Orange, Putnam, Rensselaer, Saratoga, Schoharie, Schenectady, Ulster, Warren and Washington Counties

Regional Updates, continued from last page

Early cole crops looked great but we are now heading into the tough period where things want to bolt. Some growers are also encountering problems with maggot feeding, particularly in wet soils. The only good news about hot weather with cole crops is that root maggots are killed with soil temperatures over 90-95 degrees, which are often reached this time of year, particularly in raised beds.

Mid-Hudson Valley- Columbia, Dutchess, Greene, Orange, Putnam, and Ulster Counties:

On Monday afternoon, a planting of tomatoes in Ulster County was found to be infected with Late blight. Tomato and potato plantings in Ulster and surrounding counties are at high risk for Late blight infection as the spores are easily windblown and can travel many miles. Please take action to protect your plantings and your neighbors too! Below is a link for organic management of late blight on tomato and potato as well as a link to help you identify late blight from other diseases. Specific



The Late blight lesion on the underside of the leaf produces tell -tale white sporulation- Photo TR

guidelines on management in conventional systems is included in this newsletter. If you have questions or think you have Late blight, please contact one of the ENYCHP specialists.

Distinguishing Late Blight from Other Tomato and Potato Diseases

https://www.youtube.com/watch?v=aA4PuEKaQpY

Organic Management

http://www.longislandhort.cornell.edu/vegpath/organic_late_blight_management.pdf

The recent hot and sunny weather has caused dramatic growth in many crops; irrigation pumps are working overtime with many growers watering daily. Harvest of early transplanted yellow onions has begun this week as well. The dry weather has appeared to slow down some bacterial diseases in the area including bacterial spot on pepper and angular leaf spot on cucurbits. Powdery mildew, which is favored by high humidity combined with a lack of precipitation, was found infecting summer squash.

Late Blight Update

The reports of Late blight from around the region continue to come in with the newest one (just this morning, Tuesday, July 21) right here in our own backyard. CCE Vegetable Specialist Teresa Rusinek with the ENYCHP confirmed LB in tomatoes on a farm in Ulster County that had been sprayed with protectants (copper and several biopesticides) routinely the last couple of weeks. Samples have been sent off to Cornell Pathologist Dr. Bill Fry to determine the strain which will be very important in regards to how we treat it. Likewise, LB was identified by our colleague from Connecticut on tomatoes in in Litchfield County and a second report on potatoes from Vermont.

What to do? Growers close to the sources should be including a LB specific fungicide as part of their fungicide program. There are lots of good choices out there currently for conventional growers. See Table 1 for more information*.

For organic growers, copper is still the best option we have especially when applied as a preventative (5-7 day schedule) and coverage is maintained throughout the season. Adding of a spreader/sticker will help improve coverage. Also, keep in mind that all copper products are not the same and that they will contain different levels of copper, even at maximum rates. For more information on this go to: http://vegetablemdonline.ppath.cornell.edu/NewsArticles/Copper-Fungicides-Organic.pdf or see last week's newsletter.

We know that even the best copper program will allow some Late blight to get started so scout frequently and be diligent in reporting something if you suspect LB. Many growers are also tank mixing other products such as Actinovate, Double Nickel, Regalia and Oxidate. If using Oxidate, remember that it has a narrow window of control—it will kill some spores that are at the right stage, but it does not offer any residual and should be followed up soon after with an application of copper. Do not mix Oxidate and copper as I have seen some injury from this combination.

Again, we cannot emphasize how important it is to inform your local regional vegetable specialist if you suspect Late blight. A quick and definite diagnosis is not only important to your farm, but the region in general as early detection can go along ways for prevention on other farms and is also plays a huge role in the other control options that can be used. We also need to collect samples for strain identification that will also allow us to determine control options and potential sources from where the LB may have come. When in doubt, please call one of the specialists on the front cover of this newsletter.

Late Blight Update, continued from last page

Table 1: Recommended Fungicides for Late Blight in Tomatoes and Potatoes*

Product	FRAC Code	Rate Per Acre	PHI* *	REI**	Comments		
Ranman 400 SC Tomatoes Potatoes	21	2.1—2.75 fl oz T, 1.4—2.75 fl os P	0 12	12 12	7—10 days spray interval, include protectant mixing partner (chlorothalonil, copper, mancozeb)**, Do not make more than 3 consecutive applications before rotating to another mode of action		
Curzate Tomatoes Potatoes	27	3.2—5.0 ozs 3.2 ozs	3 14	12 12	Needs to be mixed with a protectant**. Best if used at first sign of LB in the field. Short residual, recommend mixing with longer residual material like Previcur Flex or Ranman		
Artison Tomatoes Potatoes	27 + M3	1.9—3.0 pints 2.0 pints	3 14	12 12	Pre-mix of cymoxanil (Curzate) and chlorothalonil (Bravo)		
Tanos 50 DF Tomatoes Potatoes	11 + 27	8 ozs 6 –8 ozs	3 14	12 12	Needs to be mixed with a protectant**. Don't make more than one application before alternating with different mode of action (note: one of the active ingredients (cymoxanil) is the same as Artison & Curzate so don't rotate to either of these products.		
Forum SC Tomatoes Potatoes	40	6.0 fl. ozs 4.0 –6.0 fl ozs	4 4	12 12	Needs to be mixed with a protectant Rotate with other products after 2 sequential applications.		
Presidio Tomatoes Potatoes	43	3.0– 4.0 ozs 4.0 fl ozs	2 7	12 12	Must be mixed with a partner with a different FRAC group. Do not apply more than 12 fl oz per acre per season. Apply no more than 2 sequential applications before alternating with another fungicide.		
Previcur Flex Tomatoes Potatoes	28	0.7—1.5 pints 0.2—1.5 pints	5 14	12 12	Must tank mix with a protectant fungicide. Will also provide con- trol of Early Blight.		
Gavel 75 DF Tomatoes Potatoes	22 + M3	1.5—2.0 lbs 1.5—2.0 lbs	5 3	48 48	Do not tank mix with another product if the target disease is only Late blight. Do not make more than 8 applications.		
Revus Top Tomatoes Potatoes	40 + 3	5.5 –7.0 fl ozs 5.5 –7.0 fl ozs	1 14	12 12	Apply no more than 2 sequential applications before alternating with another fungicide. Add a non-ionic surfactant or penetrant type adjuvant for better results. Will also provide control of Early blight and Septoria.		
Zing! Tomatoes Potatoes	22 + M5	36.0 fl ozs 32—34 fl ozs	5 7	12 12	Pre-mix of zoxamide (Gavel) and chlorothalonil (Bravo). Do not make more than 2 sequential applications before alternating with a fungicide that has a different mode of action. Do not make more than 8 applications or apply more than 1.52 lb. zoxamide and 8.88 lb chlorothalonil per acre per season. Do not tank mix Zing! with oil, or with any adjuvants which contain oil as their principal ingredient.		
Omega 500 F Potatoes	29	5.5 fl ozs	14	12	Apply no more than 3.5 pints/ acre per season (56 fluid ounces). Apply no more than 3.5 pints /acre per season (56 fluid ounces).		
Super Tin 80 WP Potatoes	30	1.87 oz	7	48	Effective when LB is in field, has short residual. Don't use spreader stickers or combine with EC or DF formulation fungicides. Ground applications must be made in closed cab.		
mancozeb	M3	See label, depends on formulation					
chlorothalonil	M5	See label, depends on formulation					
copper	M1	See label, depends on formulation					

*This is not a complete list of fungicides labeled for Late blight. For a full list please use the 2015 Cornell Integrated Crop and Pest Management Guidelines for Commercial Vegetable Production.

**Please note that when using protectants as mixing partners, you must use most restrictive PHI and REI depending on mixing partner used.

Aster Yellows on Celery

Aster yellows has been identified in several celery plantings this year, leading to significant crop losses in some cases. This disease is caused by a specialized bacterium called a phytoplasma. The bacterium is transmitted by the aster leafhopper which introduces the pathogen into the phloem of susceptible plants upon feeding. Aster leafhoppers may overwinter as eggs in grasses or migrate from the southern US early in the growing season. Deep and sustained snow cover encourages leafhopper egg survivorship and may be contributing to the increase in disease incidence observed this season.

Symptoms of this disease appear 7 to 28 days after infection and include yellowing, stunting, and twisting of petioles and leaves. As the



Adult aster leafhopper. Photo: Yurika Alexander

Twisted, deformed leaves due to aster yellows phytoplasma infection. Photo: KB

disease progresses the inner heart of the plant may turn brown and become necrotic. Management of this disease starts with effective weed control. The aster yellows phytoplasma infects over 300 plant species, including plantain, knotweed, lambs-quarters, wild asters, sowthistle, ragweed, and wild carrot. Control of these weeds in and around fields is essential for disease management; removal of symptomatic celery can also reduce disease spread. Yellow or orange sticky cards can be used to monitor leafhopper activity. Foliar insecticides should be applied as soon as leafhoppers are detected in a field. Small scale and/or organic growers may use floating row covers to exclude leafhoppers. Reflective plastic mulch, which impedes the ability of leafhoppers to locate host plants, has been shown to reduce disease incidence. -KB

Respirator PPE Recall

<u>Moldex User Voluntary Recall/Stop Use/Relabel Shelf Life</u>

Notice Series: 2300 N95, 2700 N95, EZ23N95 and EZ23S N95

<u>Model Numbers:</u> 2236, 2300N95, 2300V, 2301N95, 2307N95, 2350N95, 2357N95, 2700N95, 2700V, 2701N95,

2707N95, M2700N95, M2701N95, M2707N95, EZ23, EZ238

<u>Reason</u>: Exhale valve rubber diaphragm potential reduction in shelf-life and performance below NIOSH standards. Discontinue use of any product more than 4 years old.

Please contact Moldex Customer Service at 800-421-0668 ext. 550 or <u>*Tech@Moldex.com*</u> if you have questions or wish to return/replace an item.

Source: NYCAMH Newsletter Summer 2015 Submitted by Maire Ullrich



Hopper Burn in Potatoes: Not Late Blight, but not Good!

We have gotten quite a few calls in the last week or so from growers concerned they have late blight because their potato crops go from looking good to scorched very quickly. Late blight can certainly take down a crop in no time, but fortunately what we are seeing so far is not in fact late blight. Marginal burning, leaf curling, and total plant decline can all result from hopper burn.

Why now? Leaf hoppers often start on hay fields and migrate in large numbers to crops like potatoes and beans when the hay is cut. Immediately after a haying (such as now, after second cutting) is a primary time of concern for hoppers if you farm near hayfields. Often first cutting does not result in this flush because the hoppers have not yet blown up from the south.

Why is one variety healthy and another looking so bad? Some varieties of potato are much more susceptible to leafhoppers than others. The most susceptible varieties tend to be the early ones such as Dark Red Norland, Superior and Yukon Gold. Also, russet varieties tend to be more susceptible to leafhopper damage. There are several varieties of potato that show higher tolerance or even resistance such as Elba, Prince Hairy and King Hairy. Abby Seaman, state IPM Coordinator, led a study to determine susceptibility of different varieties; the study can be found here: <u>http://nysipm.cornell.edu/reports/</u> ann_rpt/AR05/projects/seaman2.pdf.

What do I do? Leaf hoppers will continue to reproduce and feed on susceptible varieties, causing significant damage and resulting in yield losses. Ideally you want to use a translaminar or systemic product if you are a conventional grower, since leaf hoppers spend their daytime hours on the leaf underside. Options include Assail and Dimethoate. Just note if you are digging new potatoes that Assail has a 7-day PHI. Dimethoate has a 0-day PHI.

Organic and conventional growers can use pyrethrums and and pyrethroids, respectively, as well. Neither offers translaminar activity, and therefore will not be as effective, but particularly for organic growers this is the only option. Pyganic is the organic option; Warrior is the conventional option. Entrust is not labeled for leaf hopper control, but if you are using it for potato beetles you might want to check and see if you have also gotten some indirect control of leaf hopper. —cls



Hopper burn turns leaf margins purple and then brown. Image: ADI

Getting Field Heat off Crops Safely

At this time of year, getting the heat out of crops can be critical for success at your markets. This is important especially when crops are going to be stored for any length of time between harvest and sale. Corn begins to convert simple sugars into starch almost immediately once it's picked, and keeping it on ice will significantly slowdown that process. Carrots will do the same, and cutting the tops off and the temperature down will keep your carrots better longer. Unfortunately, many customers want to see those green tops on the carrots because they don't know its decreasing the quality by the hour.

Hydro cooling is a great way of reducing field heat. This can be achieved simply through dunking or spraying your crop in your washing area, or it can be as sophisticated as automated large hydrocooler machines that are able to process huge amounts of produce. Whatever your scale and equipment is, it is crucial to have high quality water for this step. This cooling water should have zero detectable coliforms. It should be potable quality water, test-

ed annually. Many packing houses use tested water already, so this is rarely an issue. However, not many packing houses use sanitizers in their cooling water. To prevent cross-contamination, it is highly recommended that you use an appropriate sanitizer in the water. Sodium hypochlorite is a common sanitizer. Maintain your water at a pH of approximately 6.5 for maximum sanitizing efficiency of bleach. You will need to add an acidifier such as vinegar to achieve this pH, as chlorine is strongly basic.

For washing lines, you will want to keep the concentration of chlorine between 100 and 150 ppm. This is a good concentration to use when getting the field heat out of crops while also preventing cross contamination. It has the added benefit of prolonging shelf life. If you have concerns about using bleaches, there are other options such as peroxyacetic acid, ozone, UV, and ozone.

Please email <u>jkochosc@cornell.edu</u> or call 845-344-1234 to speak with Erik Schellenberg if you would like to learn more about these options.

CDM seems to be all around us and seeing that our southern counties were in a "High Risk" area over the weekend I wouldn't be surprised if we start to see some symptoms showing up in the next week or so. For those growers in the south, probably not a bad idea to add in a CDM specific material this week in addition to your protectant. The hardest part about CDM this year is that it looks like we could be in store for infections from multiple strains whereas the last couple of years it has been mostly the northern strain or the "cucumber strain". The southern strain is the one that tends to attack all our cucurbits pretty much equally as opposed to being more virulent on just one crop like cucumbers. If you need assistance in identifying what might be CDM or fungicide recommendations, please do not hesitate to contact one of the vegetable educators in the ENYCHP. Our contact information can be found on the front of this newsletter!

HIGH Risk for east-central and eastern NC, eastern and northern VA, MD, DE, NJ, PA, central and western NY, northern WV, OH except the southwest, southern ON, and central and eastern lower MI. Moderate Risk to cucurbits in northern FL, GA but the far north, SC, southcentral and southeast NC, southwest MI, and northeast IN. Low Risk for central and southern AL, the FL panhandle, central and southern FL, eastern NY, Long Island, and New England except ME and far eastern MA. Minimal Risk to cucurbits otherwise.

Risk and Forecast for Tuesday, July 21, 2015:

Regional Weather: Central & Eastern U.S. / southern Canada: A fairly active summertime pattern. One front now stretching from the central Plains through the Ohio Valley and into southern New England will wash out and be replaced by a new front pushing south from the Great Lakes / upper Midwest. Expect wet weather from the Plains and southern Ohio Valley into the Southeast. Showers are possible elsewhere. Hot with highs well into the 80s and 90s, lows from the 50s to 70s.



Forecaster: TK at NCSU for the Cucurbit ipmPIPE - 2015

OUTLOOK: Overview: Epidemic spread likely in parts of the South. **Transport events tend to track near the sources or to the east.** The most favorable weather for epidemic spread emerges during Tuesday's events, from the TN Valley across the mountains into the western Carolinas and parts of GA and FL. Slightly favorable to mixed conditions are expected for many other transport events ... on both days along the East and Gulf Coasts, and with a west to east shift along the southern Great Lakes region.

HIGH Risk for northern FL and the eastern panhandle, southern GA, central and eastern TN, the western halves of the Carolinas, and adjacent slivers of KY, VA, and GA. Moderate Risk to cucurbits in southeast LA, southern MS, central and southern AL, the western FL panhandle, central and far southern FL, the eastern halves of the Carolinas, eastern VA, central and eastern MD, DE, southern NJ, southeast and northern PA, and western and central NY. Low Risk for northern OH and northwest PA. Minimal Risk to cucurbits otherwise.

Cucurbit Powdery Mildew

The question for this week so far has been "when should I start spraying my pumpkins for powdery mildew?". Although Powdery Mildew has not been found yet in pumpkins or winter squash, it can be found in summer squash plantings which is a great indicator crop. PM is a "opportunistic disease" or a stress induced disease and one of the greatest stresses a plant has is fruiting. When a plant starts to fruit it becomes the priority for the plant as this is what it is programmed to do: fruit, set seeds and procreate! For this reason, fruiting becomes a huge sink for the plants resources (water, nutrients etc.) and I think allows PM to get started. It's a good reminder too that if you are done harvesting an early yellow/zucchini planting, please disk it under, burn it off with an herbicide or continue to spray it with a fungicide program until you can destroy it. These plantings only serve as a reservoir or source of inoculum.

Cucurbit Powdery Mildew, continued from last page

Last year we introduced a new PM fungicide from Gowan called Tornio (cyflufenamid). Torino represented a new different mode of action (different FRAC code = U6) for rotating with our other labeled fungicides. This year I'm happy to announce that we have another new product labeled from BASF called Vivando (metrafenone) which is also has a different mode of action (FRAC code = U8) giving us four different modes of actions or different FRAC codes to rotate through.

Powdery Mildew Fungicide Schedule:

Week 1: Quintec at 6 ounces per acre (3 day PHI, 12 hour REI) plus Bravo or other chlorothalonil product (0 days PHI, 12 hour REI) at 2.0 pints per acre, copper (rates vary according to product selected) or sulfur (rates also vary according to product selected). Special note about Quintec: DO NOT USE on edible peel cucubits such as cucumbers and winter squash.

Week 2: Vivando at 15.4 fl oz/acre (o days PHI, 12 hour REI) plus Bravo or other chlorothalonil product (0 days PHI, 12 hour REI) at 2.0 pints per acre, copper (rates vary according to product selected) or sulfur (rates also vary according to product selected). Notes about Vivando: this material has no curative action so best results will occur when used prior to disease development. It may be applied a maximum of 3 times, but do not apply more then 2 sequential applications before rotating to another FRAC group. Recommended spray interval is 7 days with a maximum usage rate is 46.2 fluid ounces per season. DO NOT Mix Vivando with horticultural oils when making applications to crops in the cucurbit vegetables group. The full label and Supplemental Label for Vivando must be in the users possession when applying. For an electronic version of the full label to print, click the following link: http://132.236.168.99/ppds/540424.pdf and for a copy of the supplemental label go to: http://132.236.168.99/ppds/541253.pdf

Week 3: Procure 480 SC at 8 fluid ounces per acre (PHI = Up to day of harvest, 12 hour REI) **plus protectant (see above notes on protectants)**. You could also use Rally 40 WSP in place of Procure at 5 ounces per acre (0 days PHI, 24 hour REI). They share the same FRAC Group so should not be used back to back with each other. Grower experiences have showed that Procure appears to work slightly better then Rally.

Week 4: Torino at 3.4 ounces per acre (PHI = 0 days with a 4 hour re-entry interval for cucurbits) plus a protectant. If you decide to use Torino week one, use Quintec week 3 plus a protectant. Notes about Torino: Maximum of 2 applications per acre per year and they should NOT be back-to-back for best resistance management. Minimum finished spray volume should be 20 gallons per acre. Plantback Restrictions: 0 days for all crops listed on label, 30 days for all crops NOT listed on label. There are also specific mixing and application Instructions for Torino Fungicide:

1.Plan ahead. Prepare only enough spray mixture as can be applied on the day of mixing.

2. Fill tank 1/4 - 1/2 full with the required amount of total spray volume of water.

3. Shake the product container well before using. Begin agitation and add product.

4. Continue to fill tank.

5. Allow mixing in tank for 2 minutes after filling or until thoroughly mixed before applying.

6.Maintain continuous agitation during mixing and application to assure uniform suspension. If mixture sits without agitation for extended periods, agitate the mixture for at least 10 minutes before use.

7.Equip spray system with a 50 mesh inline filter, which will protect nozzles that are typically used. Nozzles may also be equipped with 50-mesh nozzle filters or 25 to 50 mesh (equivalent) slotted nozzle filters.

8.Torino Fungicide may be unstable in water pH below 4 and above 9. If necessary, buffer water to obtain optimum pH range.

Special Instructions for Tank Mixing Torino Fungicide: When tank mixing Torino Fungicide with other products, introduce the products into the tank in the following order: (1) water soluble packets (2) wettable powders (3) water dispersable granules (4) flowable liquids (such as Torino Fungicide) and (5) emulsifiable concentrates and (6) adjuvants and/or oils. Always allow each product to fully disperse before adding the next product.

Week 5: Repeat above schedule.

Remember that the above program is only for Powdery Mildew! When Downy Mildew is found on your farm or near you, fungicides specific for DM should be added to the tank.

Cucurbit Powdery Mildew, continued from last page

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Additional notes about Powdery Mildew: Dr. Margaret McGrath, our Cornell Plant Pathologist from Long Island has had very good success using sulfur as part of her fungicide program. However, there are a couple things to remember if you decide to go that route. First, not all sulfurs are the same—you want to make sure you select one that is meant to be used as a foliar spray, not a dust! Hopefully your crop protectant supplier will be able to get you the correct formulation. The one most commonly used is Microthiol. Be sure to check the rates as they vary as well depending on the material and formulation. And lastly, <u>do not use</u> it under hot (above 90 degrees) humid conditions as injury might occur. Also be careful using this on certain cucurbits such as watermelon.

Organic Powdery mildew control has a lot more effective options then does Downy mildew. Growers have had good success using botanical oils such as Organocide or Sporatec, potassium bicarbonate (Ecomate, <u>Armicarb, Kaligreen, Milstop</u>), JMS Stylet Oil, copper and sulfur products. Please consult the labels for rates as formulations may differ. However, the best success will be achieved by using these materials **PREVENTATIVELY**, before the disease gets started! You might ask why should I spray for PM when I get a fine crop without doing anything? By allowing fruit to mature fully, you can increase the overall size as well as sugar levels in many crops such as winter squash thus improving flavor and storability.

Calendar of Events

Saturday, July 25th, The First Annual Eastern NY Equipment Demonstration Day: This Year's Focus: New and Innovative Cultivation Tools, 1:00—5:00 pm (rain or shine) at the Hudson Valley Farm Hub, 1875 Hurley Mountain Road, Hurley, NY 12443.

Come and see some of the most innovative cultivation tools being produced by the world's leading manufacturers in action on a variety of vegetables and field crops! Find out if these tools are right for your operation before you purchase them. Not only will we be looking at these units for vegetables, but also field corn and soybeans- so there is something for everyone. There is no fee or registration for this meeting. <u>Click here for full program details.</u>

Monday, July 27th, Wash Station and Food Safety Workshop, 10:00am -2:00pm at Free Bird Farm, 497 Mckinley Rd. Palatine Bridge, NY 13428.

Join the Eastern New York Commercial Vegetable Program and Robert Hadad from the Cornell Vegetable Program on Monday, July 27th to learn about the process of designing, building, and operating a small-scale, post-harvest handling system. This workshop will focus on proper washing and handling practices, as well as food safety. The wash system we will ex-amine is designed to work best for new and small growers. The workshop will start with a discussion and hands-on demonstration about designing and setting up your wash line, tables, and packing shed and will cover efficient stand-ard operating practices and a range of methods for washing produce. Dunking, spraying, and aerating will all be dis -cussed along with using organic sanitizers. The session will finish with an examination of clean-up procedures and post-harvest handling considerations, including re-cooling, packing, and storage. Cost for this program (includes lunch) is \$10.00 for ENYCHP enrolled members and \$15.00 for non-enrolled. Click here for full program details

Wednesday, August 19th— Limiting Bird Damage in Fruit: State-of-the-Art Pest Management Tactics (A Vertebrate Damage Management Workshop), 4H Training Center, 556 Middleline Rd, Ballston Spa, NY 12020. T

This comprehensive class will feature results and speakers from a multi-year, multi-state project that looked at several different fruit crops. Registration details to follow.

Thursday, August 20th– Save the date for the Tomato Variety and Disease Twilight Meeting at the Hudson Valley Farm Hub, 1875 Hurley Mountain Road, Hurley, NY 12443. More information to come.

Recycling of Agricultural Plastics Being Explored Locally and Regionally

Many agricultural plastics are now considered recyclable; let's divert them from landfills or from other methods of disposal! Cornell Cooperative Extension (CCE) is working with the NY Recycling Agricultural Plastics Program (<u>RAPP</u>) and regional solid waste agencies to assess the potential to recycle agricultural plastics in Southeastern NY. Join us Tuesday, August 18 from 12 pm to 2:30 pm at CCE Ulster County, 232 Plaza Road in Kingston, for a roundtable discussion and meeting which will include a catered lunch.

Some of the recycling markets are located nearby, yet there are several challenges: agricultural plastics are not a large percentage of the local waste stream, and recycling collection points and markets require significant volume. We will explore how we can increase agricultural plastics recycling in NYS counties, gain new ideas on more efficiently collecting these plastics for recycling, and encourage new partners to become involved.

We are surveying county farms regarding the types and volumes of plastics used, as well as producer interest in recycling. Farms and solid waste and recycling managers from Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester counties are invited to participate. Come join the discussion and help make the Hudson Valley a greener area!Please let us know if you are planning to attend so we can be sure the space and food are adequate. RSVP by Friday, August 14 to Rachel at 845-344-1234 or email <u>ram72@cornell.edu</u>. RAPP is funded by the NYS Environmental Protection Fund administered by the NYS Department of Environmental Conservation.

Perimeter Weeds

It seems as though the weeds at the perimeter of vegetable fields are more populous than usual. Maybe this is due to the wetter-than-normal June or some other factor. However, in a couple of instances we suspect the perimeter weed situation has played a part in the infection/infestation of the crop.

Perimeter weeds are not only a source of weed seeds to be deposited in your cropping area; weeds can harbor insects and diseases. Pests may winter-over in these areas creating a perennial pest shelter. Often we think of the usual suspects when considering weed hosts at field edges like thrips and aphids and we may even think about the viral or virus-like diseases those insects bring with them. But the alarming part is that the weeds may also be the host for the diseases. And, not just the viral diseases are "hanging-out"

there but increasing research shows that bacterial diseases can be transmitted from weed hosts to the crop via insects as well. No, the weeds at the edge of the field are not in direct competition with your crops but they still pose a significant threat to its health and productivity. Make a concerted effort to manage weeds at the field edges. Management may mean spraying or regular mowing or weed-whacking. It may also include planting an annual or perennial non-host / less-desirable host crop such as vetch or clover at field edges. An excellent tool to start evaluating what you might want, based on your planting scheme is the Cornell Cover Crops Decision Tool: <u>http://covercrops.cals.cornell.edu/</u><u>decision-tool.php</u>. The site is not *exactly* for field-edge management but it can help you compare all of the options in one view. -MU

Sweet Corn Pest Trap Catches										
(Last Week ending 7/13/15, This Week ending 7/20/15)										
Location	ECB-E Last Week	ECB-E This Week	ECB- Z Last Week	ECB-Z This Week	CEW Last Wee k	CEW This Wee k	FAW Last Wee k	FAW This Week	WBC Last Wee k	WBC This Wee k
Central Clinton	0	0	1	0	0	0	0	0	0	0
South Clinton	0	0	0	0	0	0	0	0	0	0
Orange County	0	1	3	3	7	7	0	0	1	2
Central Ulster	0	0	0	0	0	0	1	3	N/A	N/A
Northern Ulster	1	1	0	6	0	1	N/A	N/A	N/A	N/A
Northern Washington	0	0	0	0	0	0	N/A	N/A	N/A	N/A
Southern Washington	0	1	0	0	0	0	N/A	N/A	N/A	N/A
Albany County	0	6	0	1	0	0	0	12	0	4
Montgomery County	0	1	0	0	0	0	N/A	0	N/A	N/A
Schoharie County	1	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A
Northern Columbia	0	6	1	0	0	0	0	0	0	0

WEEKLY VEGETABLE UPDATE

2015 Weather Table—The weather information contained in this chart is compiled using the data collected by Network for Environment and Weather Applications (NEWA) weather stations and is available for free for all to use. For more information about NEWA and a list of sites, please visit http://newa.cornell.edu/ This site has information not only on weather, but insect and disease forecasting tools that are free to use.

2015 Weekly and Seasonal Weather Information									
	Growing Deg	gree Information	on Base 50 ⁰ F	Rainfall Accumulations					
Site	2015 Weekly Total 7/13-7/19	2015 Season Total 3/1 - 7/19	2014 Season Total 3/1 - 7/19	2015 Weekly Rainfall 7/7-7/19 (inches)	2015 Season Rainfall 3/1 –7/19 (inches)	2014 Total Rainfall 3/1 - 7/19 (inches)			
Albany	190.9	1505.9	1391.0	0.91	12.72	15.3			
Castleton	147.1	1383.3	1341.3	1.43	14.93	15.64			
Clifton Park	154.8	1409.9	1254.3	0.1	11.85	16.04			
Fishkill	149.9	1421.3	Na ¹	0	5.14	Na ¹			
Glens Falls	62.1	1165.7	1256.0	Na	Na	18.98			
Griffiss	137.2	1172.9	1165.5	0.73	19.01	19.07			
Guilderland	142.0	1318.0	1262.5	0.05	13.62	Na ²			
Highland	156.7	1493.5	1407.1	0.42	15.93	20.9			
Hudson	154.7	1490.1	1412.3	0	12.76	22.69			
Marlboro	153.1	1426.0	1345.9	0.01	12.23	19.79			
Montgomery	156.1	1468.2	1375.5	0.2	0.43	17.11			
Monticello	132.3	1138.3	1081.0	0.16	8.41	7.27			
Peru	139.0	1171.7	1186.3	1.04	14.16	14.97			
Red Hook	150.5	1415.5	1387.0	0.11	14.79	10.41 ³			
Wilsboro	133.8	1140.8	1138.7	0.42	17.6	10.99			
South Hero, VT	143.6	1210.0	1211.7	0.81	16.2	16.18			
N. Adams, MA	125.6	1126.2	1119.0	0.75	14.31	16.01			
Danbury, CT	153.1	1330.0	1257.0	0.27	14.79	18.69			

Na1: The Fishkill site is new for 2015 so there is no historical data to report.

Na²: The Guilderland weather station was not properly reporting precipitation data in 2014 so no data will be shown for this site.

*: Precipitation data for this site did not began until May of 2014.

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