Cornell University Cornell Cooperative Extension Eastern New York Commercial Horticulture

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Active Insect Pests to Scout for NOW! Ethan Grundberg–ENYCHP

Colorado Potato Beetle: Adults that overwintered in the soil have begun to emerge in fields that were in potato and eggplant last year. Females will likely begin laying eggs on the undersides of potato leaves this week in the southern counties. The eggs are slightly oblong, yellowish-orange in color, and laid in clusters of 20-30. Females can lay up to about 500 eggs over the span of a couple of weeks. Once laid, eggs can take between 4 and 10 days to hatch into larvae depending upon environmental conditions. The larvae are most susceptible to insecticide applications when they are small, so timing sprays as close to hatch as possible will increase efficacy. However, it is also important to remember that most potato varieties can withstand up to 30% defoliation without a reduction in yield. Since Colorado Potato Beetles (CPB) develop resistance very readily, it is of utmost importance to rotate chemistries (IRAC group numbers) when spraying for CPB. Imidacloprid (group 4A) and spinosad (group 5) formulations are effective as foliar sprays. Conventional growers with heavy CPB pressure should consider treating seed pieces with Verimark

(cyantraniliprole, group 28) for early systemic control. Organic growers should remember that Trident (B.t. tenebrionis) is now registered in New York. Trident must be ingested by first instar larvae to be effective, so timing and thorough leaf coverage will be essential.



Adult Colorado Potato Beetle- Ethan Grundberg

Table of Contents Active Insect Pests......1-2 **Imported Cabbage** Worm......2-3 Sodium Hypochlorite for Bacterial Bulb Rot......3 Allium Leafminer......4 **Sweet Corn Trap** Summary......4-6 Yellow Garlic Tips......6 Name that Bug.....7 Agritourism Safety......8-9 Property Class Codes......9

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PAGE 2

Spinach Leafminer: This leafminer species only feeds on plants in the goosefoot family, chenopodiaceae, like beets, Swiss chard, and spinach. Maggots tunnel through the leaf tissue creating "mines" that often coalesce into larger areas of dead leaf tissue. Larvae became active around May 15th in Orange County, especially in Swiss chard. The larvae are the only life stage that causes foliar damage. Depending upon environmental conditions, the maggots feed for 10-16 days then fall to the ground to pupate



Spinach Leafminer Damage-Ethan Grundberg



in the soil. So, just as with CPB management, early scouting to determine the beginning of larvae emergence and feeding is critical for effective chemical control. Since the maggots are embedded in the leaf tissue, systemic insecticides (like Agri-Mek),

or at least those with translaminar activity (such as Trigard WSP and Entrust), are most effective. If affected leaves are manually removed, make sure that they are destroyed through shredding, burning, or deep burial to ensure that larvae do not survive and emerge during the next flight (usually in early July).

Black Onion Fly: Unfortunately, there is very little information on black onion fly (BOF). However, adults are now active in Orange County. It is believed that BOF lays eggs on and around onions, chives, and occasionally garlic. Eggs that are laid closer to the soil often produce maggots that burrow into the soil and feed on roots and cause damage similar to onion maggot. However, adult flies will also lay eggs further up on leaves. The maggots that hatch from these eggs

can cause feeding damage similar to allium leafminer. Growers in the northern counties saw extensive BOF damage in leeks last fall, but we believe maggots may be active earlier as well. Adult BOF are thought to be most active in the late afternoon. If you see these flies with distinctive striped wings in your alliums, please try to get a picture and send it our way so that we can begin to understand its geographic distribution .



Adult Black Onion Fly-**Ethan Grundberg**

Imported Cabbageworm Getting an Early Start Crystal Stewart–ENYCHP

Imported Cabbageworm generally doesn't severely affect the earliest plantings of brassicas, but this season it seems to be making an appearance earlier than usual. Eggs and young larvae were found in Ulster County late last week, along with a healthy population of flea beetles.

Imported Cabbageworm overwinters in our region as pupae which give rise to white butterflies in the

spring. Populations increase throughout the season as the insect completes 4 or more life cycles. Plantings may be protected from egg laying by floating rowcover, or small caterpillars can be controlled with well-timed applications of Bt. Caterpillars grow rapidly and become quickly resistant to this control, so if you plan to use Bt be sure to begin scouting as soon as butterflies are observed, until egg hatch.

VEG NEWS

continued on next page

Caterpillars are easily controlled with products which kill fleabeetles as well. If both are present, an application or two should take care of both problems, provided Imported Cabbageworm larvae are hatched.



Eggs of Imported Cabbageworm are bullet-shaped, white to cream colored, and laid singly. Young larvae are somewhat hairless and have a yellow stripe down their back. Older larvae are fuzzy.

SURCHLOR Sodium Hypochlorite Approved for Reducing Bacterial Bulb Rot in New York Onions Dr. Steven Beer–Cornell University

Bacterial rot is perhaps the most challenging and costly problem NY onion growers face. No effective

material for reducing annual grower losses of 2% to 20% had been available. Grower trials conducted under a Cornell experimental use permit (EUP) were overseen by dedicated Cornell Cooperative Extension (CCE) personnel. Growers who added sodium hypochlorite to their routine weekly insecticide and fungicide sprays, starting in late June, experienced less rot at harvest than onions without sodium hypochlorite in "check" plots.

Based on the grower trial

Production Services (CPS). That firm has outlets throughout NY, for easy access by onion growers.



The research and registration has been directed by **Professor Emeritus Steven** Beer of Cornell's Section of Plant Pathology and Plant-Microbe Biology, part of the School of Integrated Plant Sciences. Essential assistance had been provided by the Beer lab team of technical experts, Jean Bonasera and Jo Ann Asselin, CCE associates Christy Hoepting, Maire Ullrich and Ethan Grundberg. Critical financial support was supplied by the onion industry and New York State through the Onion Research

results, Surpass Chemical Co., a century-old chemical manufacturer based in Albany, successfully applied to NYS DEC to register SURCHLOR, its brand of sodium hypochlorite. Application of SURCHLOR to growing onions was approved under FIFRA 24(c) as a Special Local Need (SLN). Arrangements have been made for distribution of SURCHLOR, the only registered sodium hypochlorite approved for application to growing plants, through Crop

and Development Program, a NY Specialty Crops Block Grant and the New York Farm Viability Institute.

Additional testing to optimize efficiency is underway during the 2017 season. Growers who wish to participate should contact their respective CCE associate. The program will supply SURCHLOR needed for trials. Additional suggestions and regulations for use of SURCHLOR will be published soon.

Allium Leafminer Update Teresa Rusinek-ENYCHP

ALM adults continue to be active in the Hudson valley area this past week, though we believe we are now past the peak flight of the spring generation. Both Ethan and I have been finding more locations with ALM feeding damage including several in Columbia County. In some crops, damage is very light with just a few plants showing feeding/egg laying while other locations have significant infestations



Left: ALM feeding on onions. Right: ALM larvae mining on chive- note how linear the tunneling is compared to Liriomyza leaf miner—Teresa Rusinek

and make their way down to the bulb, mines and twisting of leaves will become more evident. There is also concern that injury to the tissue will lead to rots. In the coming weeks we will be able to assess some of the fields where control measures were taken with insecticide sprays or row cover. We expect the adult ALM flight to end in the next few weeks but will continue to see damage develop in crops from larval activity for a longer period of time until the larvae turn into pupae and go into a resting stage through the summer months. The fall generation

on 50 % or more of plants. Tunneling mines made by of ALM adults are expected to emerge sometime in ALM larvae are now visible and as larvae grow larger

September and remain active into October.

Sweet Corn Trap Summary

Next week we will be setting out sweet corn traps around the eastern New York region. Have you ever wondered how to make sense of these trap catch counts? Here is a summary of what happened throughout the

season in 2016 and what the trap catches mean for each pest. More information on how to scout your sweet corn will follow in the next newsletter. -Annie Mills

Graph by Marion Zueflemore info on Sweet Corn Pheromone Trap Network Report http:// sweetcorn.nysipm.cornell .edu/

VEG NEWS



Sweet corn trap catches 2016

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Corn earworm:

Corn earworm moths lay their eggs directly on silks and they are difficult to reliable scout for, so we use trap numbers to determine how often to spray green silk stage corn. The higher the trap catches, the more frequently the field needs to be sprayed. –Marion Zuefle

For Additional Life Cycle Information: <u>http://</u> <u>entnemdept.ufl.edu/</u> <u>creatures/veg/</u> <u>corn_earworm.htm</u>

European corn borer: Trap

catches are useful as a backup to scouting for these insects. If you scout a field and find it's under threshold, and the trap counts are low, you can feel pretty sure that a spray is not needed. If trap catches are high and you're not finding anything, maybe you need a scouting refresher course to be sure you're able to see egg masses and damage. Damage may be caused by larvae hatching earlier in the season when trap catches were high, even though they are not currently high. Another thing we've observed is that in hot, dry seasons moths may not lay as many eggs as you would expect because they don't have access to water, so high trap catches are not always an indicator of what's happening in the field. – Marion Zuefle



Average corn earworm catch			
Per Day	Per Five Days	Per Week	Days Between Sprays
<0.2	<1.0	<1.4	No Spray(for CEW)
0.2-0.5	1.0-2.5	1.4-3.5	6 days
0.5-1.0	2.5-5.0	3.5-7.0	5 days
1-13	5-65	7-91	4 days
over 13	over 65	over 91	3 days
Add one day to the recommended spray interval if daily maximum			
temperatures are less than 80° F for the previous 2-3 days.			



Fall Armyworm: Trap catches are useful as a backup to scouting for these insects. If you scout a field and find it's under threshold, and the trap counts are low, you can feel pretty sure that a spray is not needed. If trap catches are high and you're not finding



anything, maybe you need a scouting refresher course to be sure you're able to see egg masses and damage. Damage may be caused by larvae hatching earlier in the season when trap catches were high, even though they are not currently high. We've observed that in hot, dry seasons moths may not lay as many eggs as you would expect because they don't have access to water and high trap catches are not always an indicator of what's happening in the field.—Marion Zuefle

For additional life cycle information: http://entnemdept.ufl.edu/creatures/field/fall_armyworm.htm

Yellow Tips on Garlic Crystal Stewart, ENYCHP

Every year growers across the region call wondering whether the yellow tips on their garlic are a problem, and why they are like that. We haven't really gotten a sense as to why garlic tips turn yellow sometimes. It might be environmental, it might be a calcium deficiency. What we do know is that the yellowing doesn't affect bulb size or quality, and that it doesn't signal a nitrogen deficiency.



stop worry about them! Fertilizer applications to garlic at this point in the season are not helpful. Now your focus should be on weed control and delivering at least one inch of water per week, especially as the garlic starts to head up. It is important to also keep scouting, rogueing any plants which are looking unhealthy and discarding them. During each cultivation pass and at scaping, take the time to

PAGE 6

Speaking of nitrogen deficiencies, now is the time to look at each plant and rogue carfeully,



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Tarnished Plant Bugs and the 4-Lined Plant Bugs aren't that hard to identify as adults, but their nymph stages often cause confusion. Whenever you find a bug with a rounded abdomen with cross -wise lines or ridges, chances are good it is the immature stage of something. With these 2 bugs, and they are 'true' bugs, as the insect grows its wings become longer until the wings cover the back completely when it reaches adulthood. The 4-lined plant bug adult has 4 dark lines down its yellow back, while the tarnished plant bug turns from a greenish nymph to a brownish adult. Both of these true bugs have a wide host range of flowers, herbs, vegetables and fruit. Their feeding damage on foliage causes sunken dead spots that can make herbs unsaleable. They also feed on flower buds and new growth. Tarnished plant bug feeding can ruin cut flower blossoms – Amy Ivy

Organic growers have a hard time controlling this pest, and instead try to control the environment around vegetable crops so that tarnished plant bugs will feed elsewhere. For example, TPB will stay in hay fields with abundant flowering plants instead of feeding on vegetables, but as soon as the field is cut, they move to the vegetable crops. Another key control measure for TPB is good weed control around the vegetables, as populations will quickly grow among flowering weeds. By keeping flowering weeds away from your crops, you will also keep TPB away. Pyganic applications may suppress populations of TPB, particularly of nymphs, but do not expect complete control. As with other stinkbug family pests, the adults are extremely...durable. – Crystal Stewart

- 1.) 4-lined Plant Bug nymph and the characteristic damage to leaves—Crystal Stewart
- 2.) 4-lined Plant Bug adult—UF Entomology Dept.
- 3.) Tarnished Plant Bug nymph –UF Entomology Dept.
- 4.) Tarnished Plant Bug adult University of Kentucky

Agritourism Safety: Fun and Games on the Farm Anna Meyerhoff, NYCAMH / Edited by Marie Ulrich, ENYCHP

When families plan their summer vacation or choose children – healthy, happy and safe around the a day-trip destination, more and more Americans are farmstead. skipping the beach and heading for the farm. After all, who doesn't love a hayride or some fresh-picked fruit? Agricultural tourism, or agritourism, allows people to experience rural life in a fun and educational way. Whether it is a U-pick field or orchard, petting zoo, festival, winery, on-farm bed and breakfast, school tour or corn maze, farms are popular destinations because they provide family entertainment as well as a closer look at where food comes from and how agriculture works. Kids can have fun picking fruit or learning about animals, and their parents can enjoy the beautiful view of a country farmstead.

The concept of agritourism is nothing new. According to a publication from the University of Tennessee, farm-related tourism can be traced back to the 1800s, when city dwellers stayed with rural relatives to beat the summertime heat. Visiting the country became increasingly popular with the invention of the automobile in the 1900s. Nowadays, agritourism is gaining popularity as a way for farmers to increase their income and educate visitors about their way of life, and visitors enjoy the rural experience they get from being on the farm.

Agritourism is family-friendly by design, meaning children are around the farmstead. This also means they are around hazards such as machinery and animals and must be supervised in order to stay safe. Farm operators allow visitors on their facilities because they embrace the idea of showing others their way of life, but they are also exposing these visitors to hazards and therefore opening themselves for farm visitors? up to potential problems. According to 2002 information from the USDA's National Agricultural Statistics Service, there were more than 26,000 injuries to children living, working on or visiting a farm operation in 2001. It is also estimated that in the United States, over 100 children die of agricultural injuries on farms and ranches each year. It is crucial for farmers on agritourism operations to take precautions that help keep everyone – especially

The National Children's Center for Rural and Agricultural Health and Safety, based in Wisconsin, publishes printed guidelines for agritourism health and safety, as well as a walkthrough safety checklist for hazard identification. The following information has been compiled using their agritourism safety resources. Before allowing agritourists on your farm, take a good look at your operation and make any necessary modifications to ensure that it is safe and family-friendly. Remember, the people coming to your farm may not be familiar with even 'obvious' hazards you may take for granted. Parents have a responsibility to properly supervise their children, but as a farm owner, it is your obligation to provide an environment with minimal health and safety hazards.

With the recent H1N1 flu outbreak and concerns over hygiene and the spread of zoonoses and other infectious diseases, farm owners should take extra precautions to provide hand washing stations and sanitizers for agritourists. Here are just a few of the issues to think about when allowing guests to visit your facilities:

- Do you have a farm emergency plan, labeled fire extinguishers, and workers who have been trained in first aid and CPR?
- Are fences and holding areas safe for children, and are animals clean and vaccinated?

 Does your operation have adequate restrooms and hand washing stations?

- Do you have posted safety information and rules

Are there warning signs and barriers placed near hazards such as ponds and manure pits?

- Does your farm have an area where visitors can go for relief from excessively hot or inclement weather?

- Have tools, chemicals and other hazardous materials been safely stored in locked areas? - Does equipment and machinery have necessary guards and barriers in place? - Is the farm ready to safely handle vehicle traffic from visitors?

The New York Center for Agricultural Medicine & Health (NYCAMH) gets funding from the New York State Department of Labor Hazard Abatement Board to provide onfarm safety trainings to farmers and workers. We can talk to you and your employees about agritourism safety, as well as other related topics, including large animal handling, machinery safety, H1N1 flu precautions, chemical and pesticide safety, and personal hygiene. We can even help you conduct a walkthrough of your operation – you may find it useful to have an extra set of eyes point out potential hazards and offer suggestions for improvement. We do not report to anyone; the safety survey results are for your information only. We will soon be offering CPR and first aid training at no cost, along with our current farm emergency trainings, which include fire safety and extinguisher

use. These services are available at no cost to farm owners. Keeping your agritourism operation safe is important for everyone. Protect yourself, your workers, and agritourists by scheduling a survey or training session today! Please contact me at 1-800-343-7527, ext 291 or email me at ameyerhoff@nycamh.com. NYCAMH, a program of Bassett Healthcare Network, is enhancing agricultural and rural health by preventing and treating occupational injury and illness.



Property Class Codes and Farmers' School Tax Rebate Sandy Buxton -CAAHP

Recently, I was speaking with a local tax preparer about some NYS Tax and Finance updates that are affecting NYS audits. Once again 'Big Brother' is trying to squeeze every dollar that can be found, by reviewing IT-217 credits.

A number of farms are being asked to return refund dollars because they are not eligible!

NYS Tax and Finance is now demanding to see <u>actual</u> property tax bills, not just the tax dollar totals, so they can review the Property Class Codes on each piece of land.

What are they looking for??

Is the land the farmer owns classified as agricultural? It must be coded as farmland, ...

Land that is classified as rural, rural vacant or something else is apparently not eligible for the IT-217 Credit. So auditors are clawing back refunds given on ineligible parcels.

Even if the land is being farmed, Tax and Finance says it must be under the proper Property Classification Code to receive the benefit.

This means farmer-landowners need to check ALL of their tax bills (or parcels on the local Real Property website) and make sure they are classified PROPERLY. Talk to your assessor and confirm/document/validate that your parcels are appropriately marked.

It is common when farmers purchase land, even if they have been farming it as a tenant, the property class code may not be ag-related. However, it is vital, after the purchase, for the farmer to speak to their assessor and request the code to be updated to reflect the use.

This is important even if you are not a full time farmer, with 2/3 of your income comes from farming, which makes you eligible for the credit. At some point in the future, you may be in a different position and it may be more difficult to reclassify the land.

For more information on this topic, please visit a factsheet at: <u>https://blogs.cornell.edu/</u> capitalareaagandhortprogram/files/2017/05/ property-code-factsheet-1yzrfi6.pdf

PAGE 10

Garlic Twilight Meeting



Join Crystal Stewart & David Stern as we tour a trial examining the effects of different cultural controls for fusarium including raised beds, flat ground, white and black plastic, straw mulch, and spring planting. We will also have a general discussion about garlic best practices, and the state of the industry.

The meeting will be from 5-7, with a pot-luck dinner to follow (ending at 8)

Bring your favorite garlicky dishes to share!

Cost: Free, courtesy of the generous support of SARE





(rain date June 22nd) Cornell University Cornell Cooperative Extension Eastern New York Commercial Horticulture

What is FSMA and What Do I Need to Do to Comply?

ARM

Erik Schellenberg-ENYCHP

The Produce Rule, which is part of the Food Safety Modernization Act, is the new FDA legislation that covers fresh produce growers. If you sell fresh fruit and/or vegetables, and your farm operation grosses over \$500,000 on a 3 year average (this total includes MORE than just produce - it includes ALL FOOD for human or animal consumption) you must comply with the Rule by January 2018. To comply, you must attend a one day FSMA food safety education training. During this training you will learn about everything else you need to do to comply with the rule. If your operation grosses less than \$500,000, it is still highly recommended to attend a training. It will be easier for you to come into compliance in the future if your business is growing if you are already creating systems to accomplish the goals of the legislation. The information is important for all growers of fresh produce.

Hudson Valley Farm Hub

1875 Hurley Mountain Rd

Hurley, NY 12443

When: 5pm-7pm June 21st

The next local training is on June 6th, from 8:30 AM to 5 PM, being held at the Hudson Valley Research Lab in Highland, NY. Please call Jill DeBlock at 845-344-1234 to register for the class. Registration fee is \$35.



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