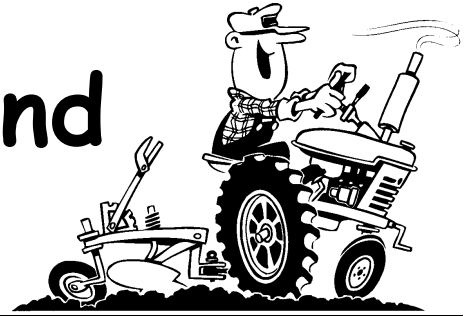


Cultivating Cumberland

June - 2016 VOL. 21, ISSUE 6



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Attachments:

Environmental Stewardship
Pollinator Workshop
OSHA Ag Safety Fact Sheet

*Cooperative Extension
of Cumberland County*



1915-2015

Pest Alert: Probable Allium Leafminer infestations found in NJ

Kris Holmstrom & Joe Ingerson-Mahar, Rutgers University

Two probable infestations of allium leafminer have been discovered. One of these was on the Hunterdon/Warren County border involving overwintered garlic and onions planted this spring. The second, a very minor infestation, was found near Princeton in Mercer County on overwintered chives. While we await word from USDA as to where specimens should be sent for final confirmation, the signs of infestation are very characteristic of allium leafminer, and larvae and eggs were found in association with the egg laying scars (oviposition scars) on the leaves of onions and garlic. Both of these infestations appear to be very recent, with larvae in very early growth stages.

It is likely that this pest is more widespread in the state than was assumed, given that we only became aware of it in Pennsylvania several weeks ago. The most serious damage from this pest is likely to be from rot-causing organisms that enter plant tissue via wounds caused as the miners burrow down the foliage and pupate near the bulbs. The easiest way to determine whether this pest is present is to observe upper leaf tissue for characteristic signs of oviposition. This will consist of pale circular-to-oval scars in straight lines near the edges of foliage on flat leafed hosts like garlic and leeks. On onion leaves, the scars might be anywhere on the leaf surface, but will usually be closer to the tip.

It is not known the extent to which this pest could be an economic threat this season. The current known infestations appear light, but reports from Europe, where the pest is endemic, indicate that it can be quite serious. Therefore, we would advocate regular scouting of onion and related crop fields. Look for the appearance of oviposition scars. If these are found, it may be prudent to make an insecticide application. Adult (fly) activity should decline after 2-3 more weeks, according to available information on this pest. After this point, larvae will pupate and remain dormant for much of the summer. Flies will emerge in late summer and early fall to infest the fall crop.

Insecticides which are labeled on onion are: Entrust (spinosad), Radiant (spinetoram), Scorpion (dinotefuran) and Triguard (cryomazine). All are labeled for leafminer on onion. Be sure to check labels for specific crops.

Rutgers Cooperative Extension 100 Years of Service in Cumberland County

Telecommunication Problems

The County of Cumberland has agreed to act as the lead agency on behalf of 16 communities in South Jersey to pursue a petition before the Board of Public Utilities against Verizon NJ in an effort to compel Verizon to maintain copper landline services. CC Freeholder Director, Joe Derella, said, "Verizon is attempting to discontinue maintenance of copper landlines which means that telephone and telecommunication services, including internet service through copper landlines will ultimately deteriorate and fail. At that point, telecommunications may be unavailable and unless telephone service through Comcast or cell phone service is available there may be no landline coverage at all in many communities. The County and 16 communities are fighting against the effort by Verizon to discontinue landline maintenance".

Deputy Director Darlene Barber said, "A page on the County website has been set up to allow any person who is experiencing problems with telephone and telecommunication services to inform us of the problems in order to allow us to present this information to the Board of Public Utilities. The information can be found by going to www.co.cumberland.nj.us, click on the "citizen resource center" and the questionnaire link is in the second paragraph".

We are requesting that everyone experiencing problems go to the website and complete the questionnaire. The more information we have to put before the BPU the better.

GAPs Online Produce Safety Course

The following Produce Safety on-line courses are scheduled for 2016:

- June 8th running through June 28th
- July 13th running through August 2nd
- September 7th running through September 27th
- October 5th running through October 25th

Taking this course will not result in your farm being "GAPs Certified". GAPs certification is done by a third party (e.g. USDA, Primus, Global GAP) and involves the successful completion of an on-farm audit.

It is also important to consider that the GAPs Online Produce Safety Course is not currently equivalent to the required supervisor training described in the FSMA Produce Safety Rule 21 CFR Subpart C § 112.22©. This Gaps Online Produce Safety Training Course may, however, satisfy training requirements as described in the FSMA Produce Safety Rule in §§ 112.21(a) and (b).

The Produce Safety Alliance plans to offer in-person training that meets the requirement in § 112.22© of the FSMA Produce Safety Rule. You can sign up for the listserv on the Produce Safety Alliance website: <http://producesafetyalliance.cornell.edu/> to be notified of where and when in-person trainings will be held.

To register for the on-line courses contact Betsy Bihn at eab38@cornell.edu or call 315-787-2625. Course cost is \$190.00 per course. Submit payment at : www.ecornell.com/gaps

Controlled Release vs Slow Release Fertilizer Products in Vegetable Crops

May 6, 2016 Emmalea Ernest, Vegetable Crops Delaware Weekly Crop Report

Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu

There has been considerable work on controlled release fertilizer over the years and many of the different technologies have shown potential for use with vegetable crops. Controlled released fertilizer is most useful with nutrients that are subject to leaching losses, particularly nitrogen.

Controlled released fertilizers should not be confused with slow release fertilizers. With slow released fertilizers, release pattern over time is not easily predicted and may be affected by moisture, temperature, and microbial activity. Historically slow released fertilizers have included organic sources that require decomposition and mineralization such as manures, composts, waste products from plant or animal sources, and plant residues.

There are also slow release mineral based fertilizers such as magnesium ammonium phosphate (an N, P and Mg source), clinoptilolite (a natural Zeolite that can be reacted with NH_4 which is held tightly and reacts as a slow release N source), rock phosphate (a P source), greensand (a K source), limestone (Ca and Mg source), glass frits (fritted trace elements in a fused glass form), and elemental sulfur. These materials are released upon weathering and dissolution (sulfur is converted to sulfate by microbial action). An older technology that produces slow release N fertilizer is when urea is combined with an aldehyde. These fertilizers are in liquid or dry forms and include UreaForm (UF), Methylene Urea (MU), Triazone, and IBDU. Longevity depends on length of chemical chain and microbial activity needed to release the N. An exception is IBDU where N is released by hydrolysis at a slow rate and granule size controls longevity. Liquid forms of these products are very useful for foliar fertilization as they have much less injury potential than salt based N sources.

Another older slow release fertilizer technology is sulfur coated urea. This technology was developed at the TVA and commercialized in the 70s. Liquid sulfur coats urea prill then hardens (prills are often then coated with wax. Breakdown and release of the N in sulfur coated urea is by both physical and microbial action and the size of coat determines the release rate.

In contrast to slow release fertilizers, controlled released fertilizers have a predictable release pattern over time that is commonly temperature based. Controlled release fertilizers that are currently used are based on diffusion coatings (polymer and resin coated products). These coatings include thermoset resins, where a fertilizer prill is surrounded by a hardened shell from resins added in multiple layers (such as Original Osmocote), thermoplastics where the prill surrounded by plastic shell with additives to create pores or

wicks (such as Nutricote); and reactive layer coatings where a thin polyurethane shell is produced when 2 chemicals react as they are sprayed on the fertilizer prill (such as ESN).

Polymer coatings can be used on most fertilizers and are common in the nursery and greenhouse industries with complete fertilizer products applied to potted plants. Coated product technologies have advanced over the years to give more precise release properties. However, release will still be dependent on the type of coating, the thickness of the coating, as well as temperature and moisture. Controlled release fertilizers are commonly rated as to how long they take to release nutrients in days (70 day, 90 day, 120 day formulations for example). They can also be mixed with a small amount of regular soluble fertilizer to give an initial nutrient charge.

Cost of reactive layer coated urea has decreased over the last decade and this provides an economic opportunity to provide controlled released nitrogen to vegetable crops. These fertilizers increase plant nitrogen-use efficiency by reducing N applied. Use of these products also eliminates need to sidedress or fertigate, giving fuel and time savings. From an environmental perspective there is reduced nitrate contamination from leaching due to the release pattern of the coated fertilizer.

Controlled released fertilizer research in Delaware on vegetable crops has shown equivalent yields to conventional fertilizer in multiple application with the controlled release fertilizer placed before planting (thus eliminating applications). In some cases reduced rates were needed and there was reduced N leaching. Controlled released fertilizers were tested on squash, melons, watermelons, tomatoes, peppers, and strawberries with good results.

Research on the use of ESN polymer coated urea by Cornell on Long Island showed that reduced rates of N could be used on potatoes and sweet corn with equivalent yields. Recommendations from these studies were not to use straight controlled release but to blend with conventional N sources to provide 75-80% of the total N as controlled release. Overall they were able to reduce total N rates/acre by up to 20% in these vegetable crops.

Because controlled released N fertilizers are more expensive, for the economics to work out they need to be used at 10-25% reduced rates. Research has shown that this is possible on many vegetable crops.

Rutgers Fact Sheets

The following fact sheets are now available on NJAES Publications:

- FS1253 New Jersey's Right to Farm Act - What it is and How it Works
Kimmel, D., Everett, J. and Schilling B.
- FS1255 Ecology and Control of the Freshwater Aquatic Plant Spatterdock
Haberland, M.

These fact sheets and many more are available to download from:

<http://njaes.rutgers.edu/pubs> or by calling your local Extension Office.

Sandea Label Changes for Cucumbers/ Pickles

May 20, 2016 Emmalea Ernest Vegetable Crops

Mark VanGessel, Extension Weed Specialist; mjbv@udel.edu

There is a new Supplemental Label (24c) for Sandea on cucumbers allowing a 14 day pre-harvest interval (PHI), reduced from the current 21 day PHI. This label will eventually be on the full label, but growers wanting to use the 14 day PHI will have to have a copy of the supplemental label in their files. Copies of the 24c label are available on CDMS (<http://www.cdms.fnet/Label-Database>).

While the PHI has been shortened, the label still requires an early POST application window from after the 3 to 5 true leaves stage but before the first female flower appears. In addition, Sandea is labeled for preemergence application.

Farm Directory

The Cumberland County Board of Agriculture has received a Specialty Crop Block Grant for the purpose of increasing public awareness of the importance and availability of specialty crops grown in the county. One of the project goals is to help county residents "buy local" through the use of social media tools. To this end, we need to develop a retail directory of Cumberland County farms. If you sell, or wish to sell, directly to the public and wish to have your farm included in this directory, please email your farm name and contact information to: cumberlandnjboa@gmail.com by June 30, 2016.

We are also looking for wholesale farming operations willing to help promote Cumberland County agriculture by sharing farm pictures, farm family stories, etc. If your operation is strictly wholesale, but you would like to support this public awareness campaign, please email your farm name and contact information with a "wholesale only" designation.

To reply to be in the directory, send farm name and contact information to:

cumberlandnjboa@gmail.com

SNAP EBT Farmer's Market Sign Up

The SNAP EBT program is a collaborative effort between USDA/FNS, Farmers Market Coalition & State Agencies for Agriculture and SNAP.

A win/win for Farmer's Markets and Direct Marketing Farmers:

Increased customer base

Increased economic benefits for you and your communities

Healthy and nutritious options for SNAP recipients

To Apply to become authorized to accept SNAP (Online takes approximately one hour):

- Visit: <http://www.fns.usda.gov/ebt/learn-about-snap-benefits-farmers-markets>
- Call to receive a paper application - 1-877-823-4369

Items Needed to complete application:

- Picture ID (driver's license or passport)
- Social Security Card
- Copy of voided check for bank account you will use to deposit funds

For Non-profit Organizations:

- Copy of your 501(3)© for Non-Profit Organizations
- Employer Identification Number

Find Out if you qualify for FREE wireless point of sale EBT equipment?

For more information, visit the following website:

<http://farmersmarketcoalition.org/programs/freesnapebt/>

New Jersey was also awarded grant money to offer free wireless equipment. Please contact the NJ State EBT for more information: Dewanda Kelly, State of NJ, Division of Family Development, EBT Unit, 609-631-4960

Calendar of Important Events

↻ Indicates the newly added event since last calendar

June 2016

June 8

Pollinator Victory Garden Workshop, Rutgers Cooperative Extension of Cape May County, 5:30 p.m.- 8:00 p.m.; \$25. For more information call 609-465-5115 x607

June 11

Rose Day Festival, Colonial Park Gardens (Free with suggested donation); 11 a.m. - 5 p.m. For more information call 732-873-2459 x21.

June 25

Children's Container Gardening with Edible Plants Workshop, Colonial Park Gardens, \$15 ages 7-10 (limit 10 children must be accompanied by an adult). Pre-registration by Friday, June 17th; 10am-noon. For more information call 732-873-2459 x21.

June 30-July 2

Bee-ginner's Beekeeping, Rutgers Continuing Education, New Brunswick; Day 1-2 9am-4pm, Day 3 9am-noon. \$215.00, some discounts apply. For more information call 848-932-7315.

July 2016

July 16

17th Annual Garden Party, Colonial Park Gardens; Free with suggested donation; 11am-3pm. For more information call 732-873-2459 x21.

August 2016

August 6

Sense & Scents-Ability "All About the Birds and the Bees", Colonial Park Gardens, 156 Mettlers Road, Somerset. Free (suggested donation); 11am-2pm. For more information call 732-873-2459.

August 22-26

Introduction to Food Science, Rutgers Continuing Education; \$1,495 by 8/8. For more information visit: www.cpe.rutgers.edu/food or call 1-848-932-9271 x2.

September 2016

September 10

Autumn in the Perennial Garden, Colonial Park Gardens, 156 Mettlers Rd., Somerset; \$15 per person with a limit of 30 people. For more information/to register, call 732-873-2459.

September 17

Flower & Garden Photography, Colonial Park Gardens, 156 Mettlers Rd., Somerset; \$35.00 a person with 12 people limit. Pre-registration by 9/9 required. For more information/to register, call 732-873-2459.

October 2016**October 5-7**

HACCP Plan Development for Food Processors, Rutgers Continuing Education; \$945 by 9/21; \$995 after. For more information call 1/848/932/9271 x2 or visit: www.cpe.rutgers.edu/FOOD

November 2016**November 19**

Thanksgiving Floral Arrangement Class, 2016 Horticultural Programs/Events, Park Commission Headquarters, North Branch Park, 355 Milltown Road, Bridgewater. 10a.m.—12 noon; \$25 per person with a limit of 15 people and includes supplies. Pre-registration due by Thursday, November 10th is required. For more information call 732-873-2459 x21 or visit: www.somersetcountyparks.org

December 2016**December 3**

Holiday Kissing Ball Workshop, 2016 Horticultural Programs/Events, Park Commission Headquarters, North Branch Park, 355 Milltown Road, Bridgewater. 10am-12 noon; \$45 per person (limit 15 people & includes supplies). For more information call 732-873-2459 x21 or visit: www.somersetcountyparks.org

REGULARLY SCHEDULED MEETINGS

✓ Indicates meeting will be held at RCE of Cumberland County

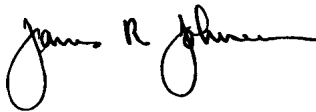
<p>✓</p> <p>Pesticide Certification Exam Schedule—Cumberland County 291 Morton Avenue Millville, NJ 08332 (Between Rosenhayn & Carmel)</p> <p><u>2016</u></p> <p>Sept 22 Oct 20</p> <p>To Register call 609-984-6614 For directions call 856-451-2800</p> <p>*****</p>	<p>✓</p> <p>Cumberland County Agriculture Development Board Soil Conservation Office 1516 Highway 77 Deerfield Street, NJ 08332</p> <p><u>2016</u></p> <p>Jun 8 Jul 13 Aug 10 Set 14 Oct 12 Nov 9 Dec 14</p> <p>Reg. Meetings start at 7 p.m. Information call 856-453-2211</p> <p>*****</p>	<p>✓</p> <p>Cumberland County Board Of Agriculture 291 Morton Avenue Millville, NJ 08332 (Between Rosenhayn & Carmel) 7 pm meetings</p> <p><u>2016</u></p> <p>Sept 15 Oct 20 Nov 17 Dec 15</p> <p>For info call Hillary Barile, President 856-453-1192</p> <p>*****</p>
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**Cumberland County Improvement Authority (CCIA)
Pesticide Container Recycling**
9:00 a.m. to 12 Noon
Cumberland County Solid Waste Complex
169 Jesse's Bridge Rd. (located off Route 55 Exit 29)
Deerfield Township, New Jersey

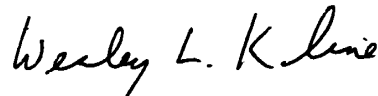
Questions? Call Division of Ag & Natural Resources, NJ Dept. of Ag 609-292-5532

June 17 July 15 Aug 19
Sept 16 Oct 21 Nov 18

Sincerely,



James R. Johnson
Agricultural Agent
Nursery Management Commercial
Internet: jjohnson@njaes.rutgers.edu



Wesley L. Kline, Ph.D.
Agricultural Agent
Vegetable & Herb Production
Internet: wkline@njaes.rutgers.edu

Pesticide User Responsibility: Use pesticides safely and follow instructions on labels. The user is responsible for the proper use of pesticides, residues on crops, storage and disposal, as well as damages caused by drift.

Use of Trade Names: Trade names are used in this publication with the understanding that no discrimination is intended and no endorsement is implied. In some instances the compound may be sold under different trade names, which may vary as to label.

Have you visited the Cumberland County website for the Present and/or past issues of "Cultivating Cumberland"? It's a great resource for information and dates.....

<http://Cumberland.njaes.rutgers.edu/>

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