WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

Volume 33, Issue 18 **July 11, 2025**

Vegetable Crops

Vegetable Insect Scouting

David Owens, Extension Entomologist,
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Cucurbits
Striped cucumber beetles and Lepidopteran rindworms continue to be the primary threat. Assail is the best striped cucumber beetle material, but if you are seeing caterpillars feeding on blossoms, you may want to include a worm material to protect rinds. If both are present, Harvanta is a good option, Lannate may be a decent option.

Wet weather is helping to suppress spider mite activity. Over the last several years, I have come to think that high spider mite populations do not build up fast enough to affect the first or even the second harvest of watermelon but can drastically cut fruit set and later harvests. Maintaining vine health and low spider mite populations such that leaves are not heavily stippled for the next 10-14 days should ensure that they do not become yield limiting. Mite populations tend to decline in August. This is not a guarantee, and mites may be very plentiful in other crops through August and September, including corn, sweet corn, and tomato.

Tomato
Be sure to scout fruit for signs of stink bug and Lepidopteran damage. Stink bug feeding will appear as cloudy spots on the fruit, worms put holes in the leaves and fruit. Typically, stink bugs are more of an early pest and worms are more of a later tomato pest, but this is not always the case. There are several species that can damage tomato.

Legumes
Continue scouting for potato leafhopper, especially fields that did not have an insecticide seed treatment. The threshold is 5 adults or nymphs per sweep. Be sure you are not misidentifying tarnished plant bug nymphs as leafhopper nymphs; both are small and green. TPB will look a bit more like an aphid and be a dull green and a bit more rounded whereas potato leafhopper nymphs are more of a bright lime green.

Any lima bean fields that have pigweeds in them and getting ready to bloom should be scouted for tarnished plant bug. Thresholds are 15 per 50 sweeps up through pin pod stages. Once pods get some size to them, plant bugs can't physically reach the seed and tend to leave them alone.

Sweet Corn
Corn earworm trap counts from Thursday continue to be low with a couple of exceptions. Remember, this is the time of year that pyrethroid resistance levels increase in the CEW population. Over the previous five years, Baythroid and Brigade have consistently and significantly outperformed Warrior when applied alone to sweet corn (not that I recommend a pyrethroid alone).

Fall armyworm is active in the area! Scout whorl stage sweet corn now! Thresholds are 15% for early whorl stage and tassel push sweet corn and

30% infested plants in mid to late whorl stages. I prefer not using Besiege, Vantacor, or Elevest on fall armyworm, there are active ingredient use restrictions on the chlorantraniliprole active ingredient. We need to save all of our use for silk protection. The last two years we have put in non-replicated spray strips for fall armyworm. In last year's trial, we evaluated 25 whorls that had an active armyworm in them 3 days after application. The untreated check had 32 worms, Besiege had 15, Lannate + Warrior had 12, Intrepid Edge had 7 and Avaunt eVo had 5. I suspect that Lannate would work better on smaller corn that is in early whorl stage and not mid-whorl. Intrepid Edge has the advantage of being a good material to tank mix with a pyrethroid for silk protection.

Location	Blacklight trap capture	Pheromone Trap Capture
Dover	2	41
Wyoming	0	8
Magnolia	12	20
Milford	2	5
Harrington	2	7
Woodenhawk	---	16
Bridgeville	0	16
Concord	1	26
Georgetown	1	11
Laurel	2	11
Delmar		13
Lewes		36 (2 nights)
Milton		16 (1 night)

Fruit Crops

Fruit Insect Scouting

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Vineyards

Continue monitoring for Japanese beetle defoliation. This year we are trapping for grape root borer and have caught moths in all vineyards we are monitoring except for one that is using mating disruption on account of previous year's scouting indicating greater than 5% vine infestation. This week, look for pupal casings sticking out of the soil under the vines. Unfortunately, weedy vineyard floors and heavy rains may interfere with this scouting.

Plum Curculio is active now, scout by jarring branches or considering spraying if you have had a history of them.

Agronomic Crops

Agronomic Insect Scouting

David Owens, Extension Entomologist,
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Alfalfa

Scout short alfalfa that has been cut fairly recently for potato leafhopper. We need to catch them before they cause visual hopperburn symptoms. Refer to the insect control in alfalfa guide: https://www.udel.edu/content/dam/udelImages/canr/pdfs/extension/sustainable-agriculture/pest-management/Insect_Control_in_Alfalfa_-2023.pdf. Any alfalfa in bloom should be scouted for blister beetles.

Corn

Japanese beetle are active and may put skeletonizing holes in leaves and feed on silks. Leaf holes tend to be cosmetic. If there is extensive leaf feeding, it is almost always a small location on the field edge. Consider a treatment if you meet the following three conditions: 1-2 beetles per ear, silks clipped to ½ inch, and ears are less than 50% pollinated. There is a great video on determine pollination here: https://www.youtube.com/watch?v=K7DiwD4N0T0.

In New Castle County and areas of western Kent County with heavy soil, scout fields that have been in corn at least two years in a row and a candidate for being corn next year for corn rootworm adults. If a field has an average of 1 beetle per plant, the field should either be rotated or a beetle active Bt variety should be used next season.

Soybean
With adequate soil moisture, full season beans can take an enormous defoliation beating even in the reproductive stages without hurting yield. Thresholds have recently been revised upwards to 20%. Japanese beetle defoliation tends to be extremely eye catchy on upper most canopy leaves but not affect mid or low canopy leaves. If you think there is significant defoliation occurring, check to make sure that the pests are still present. Also scout for stink bugs and Dectes stem borer. Stink bug thresholds are 2.5-5 bugs per 15 sweeps. Dectes might be an issue if populations approach or exceed 1 per 10-15 sweeps. Otherwise, if going over a field with a fungicide pass, preserve pollinators and do not include an insecticide. Pollinators contribute a fairly substantial amount of yield potential.

Recently a question came in regarding spider mites in soybean. Last year, we filmed a short video on spider mite considerations. Check it out: https://www.youtube.com/watch?v=WM-9XPlwqD4.

Corn and Soybean Disease Updates

Alyssa K. Betts, Extension Field Crops Pathologist; akoehler@udel.edu

Extreme heat followed by lots of moisture over the past few weeks has led to the appearance of several abiotic symptoms, particularly leaf scald in corn. Sunburn on the leaf can resemble foliar lesions (Figure 1) but is often present on the youngest leaves with most exposure in the upper canopy (Figure 2). However, as we continue with wet and humid weather patterns, this creates a favorable environment for fungus among us. In corn, yield reductions are typically observed when lesions are present on the two leaves below the ear leaf or higher, so these are the leaves to pay close attention to when scouting. If corn has not yet tasseled and over 50% of plants have lesions on 5% or more of this leaf surface (ear leaf or 2 below), you may want to consider a fungicide application. If applying a fungicide, VT/R1 timing has shown the greatest chance of economic return for grey leaf spot. The 2025 Fungicide Efficacy for Control of Corn Diseases, provides ratings of product performance across multiple diseases based on trials conducted by Extension specialists across the country.

Field areas saturated for extended periods may begin to look yellow. If soybean plants do not recover after the soil has dried, you may want to check for Phytophthora root rot (PRR). Phytophthora in soybean is one that we don't consistently see, but the weather conditions this year have been conducive, so it is one to keep an eye on. In mature plants yellow leaves and wilting are the first symptoms. When dug up roots will be brown and rotting, these plants will easily pull from the ground. You may also see a dark or purple discoloration on the stem (Figure 3). With this disease leaves remain attached, and you may see dead plants in a row or as patches, particularly in those low field areas. The PRR that impacts soybean is caused by a different species (*P. sojae*) than the ones we see in vegetable production, so crop rotation is a good management option. Other management approaches include soybean variety selection for genetic resistance and seed treatments.

In addition to diseases like PRR, nematodes are also in many of our soils. Soybean cyst nematode (SCN) and root-knot nematode (RKN) may act alone or could be in combination with PRR or other diseases like soybean sudden death syndrome, Diaporthe diseases, brown stem rot, or others. Root-knot often has more visual symptoms than SCN and any time the plant has been stressed, these tend to be more pronounced. With root knot nematode, you will be able to see galling when roots are dug (Figure 4). We will discuss more about RKN in next week's article.

As far as foliar disease, I have been seeing a bit of low canopy Septoria Brown Spot. Leaf symptoms begin as small brown spots that can have a yellow halo around them, as spots coalesce the leaf may turn yellow (Figure 5). This disease usually stays to the bottom of the

plant, limiting yield impact. Fungicide applications in soybean are most economical when disease is present and fungicides are applied during R1-R6 growth stages, with R3 being the timing with best return on investment. If you have disease present, and are considering a fungicide application, it is important to scout fields and monitor the weather. Most soybean diseases are favored by humid, wet conditions. The 2025 Fungicide Efficacy Recommendations for Foliar Diseases of Soybean provide an overview of product ratings based on trials conducted by Extension specialists across the country.



Figure 2. Leaf scald symptoms on corn present on younger leaves near the upper canopy.



Figure 1. Leaf scald on corn following high temperatures.



Figure 3. Stem lesion from Phytophthora root rot.



Figure 4. Root galling on soybean caused by root knot nematode.



Figure 5. Low canopy Septoria brown spot.

Farm Support Program Funding Increases Following New Legislation

Nate Bruce, Farm Business Management Specialist, nsbruce@udel.edu

Funding for farm support programs will rise by $66 billion following the signing of new legislation on July 4th. The bill passed the House by a narrow margin of 218–214 after a contentious debate. In addition to expanding funding for farm-related programs, the legislation extends provisions from the 2017 Tax Cuts and Jobs Act and the 45Z Clean Fuels Production Credit.

Beginning in 2026, the estate-tax exemption will increase to $15 million for individuals and $30 million for married couples and will be made permanent. The bill also includes several tax changes intended to benefit farmers, including provisions related to investment in equipment, property transfers, and farmland transactions. The extension of the 45Z Clean Fuels Production Credit, a federal tax incentive aimed at promoting domestic clean fuel production, is expected to reduce imports of certain inputs such as used cooking oil.

Substantial increases are included for the Price Loss Coverage (PLC) and Agriculture Risk Coverage (ARC) programs. Farmers may enroll up to 30 million additional base acres based on planting history from 2019–2023. Payment limits under these programs will increase from $125,000 to $155,000 for individuals and from $250,000 to $310,000 for married couples and will be adjusted for inflation. Commodities with the largest number of planted acres may see lower per-acre payments. Crop insurance programs will receive an additional $6.3 billion in funding over the next 10 years, including higher premium subsidy levels. The bill also introduces new support for beginning farmers and a pilot insurance program for poultry producers.

General

Crop Pest Hotline 302 831-8851 for latest trapping information and other relevant observations.

Wild Bees – Crucial Pollinators of Many Fruit and Vegetable Crops

Veronica Yurchak, Vegetable Specialist, UMD; *vjohnso4@umd.edu*



The goal of this series is to increase awareness and knowledge of beneficial insects in cropping systems and help differentiate them from pests of concern. This week's feature beneficial is a diverse group of unmanaged pollinators collectively referred to as "wild bees". The Delmarva region is home to a diverse assemblage of wild bees, with over 400 species found in Maryland alone. Wild bees are highly effective pollinators for many fruit and vegetable crops, with some species known to visit thousands of flowers in their lifetime. In many cases, wild bees are able to pollinate crops more effectively than honeybees, with one study finding that an increase in wild bee visitation enhanced fruit set by twice as much as an equivalent increase in honeybee visitation.



Figure 1. Bumblebee visiting blueberry flower.

In the Delmarva region, crops including blueberries, strawberries, cherries, apples, and cucurbits require insect pollination to produce fruit. Mason bees, also known as orchard bees, are well known for their ability to efficiently pollinate fruit trees. Also contributing significantly to crop pollination are bumblebees, which can be easily recognized by their large size and furry bodies (Figure 1). The Mid-Atlantic region is home to 19 different species of bumblebees. Bumblebees enhance pollination in blueberries, tomatoes, peppers, eggplant and other crops through a process known as "buzz pollination" during which the bumblebees vibrate the flowers at a specific frequency to dislodge the pollen. Halictid bees (Figure 2) are also effective at buzz pollination and can further increase fruit production and quality in tomatoes and other "self-pollinating" crops. Even crops that do not benefit from insect pollination, like sweet corn, can still serve as an important food source for many wild bees. A study recently

conducted in Maryland recorded frequent sweet corn pollen collection by halictid bees, the two-spotted longhorn bee, and honeybees during the pollen-shed period. Consideration should therefore be given to protecting pollinators in all cropping systems.



Figure 2. Halictid bee visiting tomato flower.

Many of the same challenges commonly attributed to honeybee declines are also causing reductions in wild bee populations. Land use changes, pesticides, pathogens, and weather variability are among the leading causes of wild bee decline. Reducing tillage and other forms of soil disturbance can help preserve nesting sites, as most wild bee species build their nests underground. Minimizing pesticide exposure is also essential for wild bee survival in cropping systems. Studies have revealed a strong correlation between pesticide use and declining wild bee populations. In addition to direct bee kill, sublethal effects including disrupted navigation, reduced memory, and weakened immune systems are also attributed to bee exposure to many broad-spectrum products (ex. neonicotinoids, pyrethroids, and others). Whenever possible, choose pesticides with lower bee toxicity ratings. When the use of a product with a higher bee toxicity rating is necessary, applications should be restricted to non-flowering stage crops and made shortly after dark, when bees are not actively foraging. Providing diverse habitats, including natural areas and wildflower plantings (Figure 3), is also crucial for supporting wild bee populations. These areas provide additional food, nest sides, and refuge areas from pesticide-treated fields. Many of the other beneficial insects discussed throughout this series will also benefit from any measures taken to protect and promote wild bees in crop fields.



Figure 3. Pollinator refuge area at the Wye Research and Education Center in Queenstown, MD.

Guess The Pest! July 3rd Answer

Veronica Yurchak, Vegetable Specialist, UMD; *vjohnso4@umd.edu*

To my surprise, no one correctly identified the moth pictured last week! Perhaps this is my fault for not including a clear enough photo, the insect in the picture had already spent a few days in the trap. The moth pictured was a western bean cutworm (WBC), which can be differentiated from the commonly encountered corn earworm (CEW) moth by examining the wing patters. WBC can be identified by the presence of a distinctive white stripe along the

outer edge of the forewing, followed by a small white dot and “u-shaped” or “bean-shaped” brown spot (Figure 1, left). CEW, in contrast, has a tan to reddish-brown wing with comparatively little patterning (Figure 1, right).

WBC is an ear-invading corn pest that has been expanding its range across the U.S. corn belt, where infestations have been sporadic. Unlike the CEW, WBC is not cannibalistic, meaning it is possible to have multiple caterpillars feeding within a single corn ear, resulting in much greater damage potential per ear compared to a CEW infestation. Still, no economic ear damage has been found in the Mid-Atlantic despite the periodic detection of the pest for a number of years now.

Similar to the CEW, WBC is very tolerant to Cry proteins and can survive and damage most genetically modified corn varieties. Only packages containing the Vip3A protein (Attribute II and Attribute Plus trait stacks) will provide effective control. Insecticides used for earworm control will also effectively control WBC.

As I mentioned last week, I have consistently been catching low numbers of this pest in a pheromone trap at the Wye AREC since mid-June, with the weekly catch for July 1-8th containing four WBC moths. Collectively this season, I have caught a total of eleven moths at this location, which is high compared to previous years but not unheard of. Scout sweet corn plants regularly, but keep in mind that even in years with similar trap captures, no perceivable WBC damage was detected.



Figure 1. (Left) Western bean cutworm moth. (Right) Corn earworm moth.

Guess The Pest! July 11TH

Veronica Yurchak, Vegetable Specialist, UMD; vjohnso4@umd.edu

Test your pest management knowledge by submitting your best guess for what caused the damage visible on this cucumber here, or on the GTP logo.





Announcements

Carvel Research & Extension Tour

Thursday, August 14, 2025 (rain date August 15, 2025)

2:30 p.m. - 6:00 p.m.

University of Delaware Carvel Research & Education Center

16483 County Seat Highway, Georgetown, Delaware

RSVP Required adams@udel.edu or 302-831-3328

Times are still tentative for now so stay tuned for the final schedule

2:30 - 3:00 pm	*Registration Visit Exhibitors*		
3:00 - 3:20 pm	*Welcome and Tour Overview*		
	Agronomic Tour	**Vegetable Tour**	**Poultry Tour**
3:20 - 4:00 p.m.	Variety Trials Update-Gunnar Isaacs	Amaranth Genetics Research Snap, Lima and Shelly Beans Research Dr. Emmalea Ernest, Ekat Hampton	
3:40 - 4:00 p.m.	N Cycling in Soybean with Different Termination Timings- Dr. Alex Huddell and Dylan Brown	Management of Phytophthora Fruit Rot and Anthracnose in Watermelon Dr. Alyssa Betts	
4:00 - 4:30 p.m.	Highlighting Management of Herbicide-Resistant Weeds in Field Crops-Dr. Mark VanGessel	Biochar Research-Lyndsie Mikkelsen	Necropsy Demonstration
4:30 - 5:00 p.m.	Updates on Field Crops Disease Research- Dr. Alyssa Betts, Erin Wright, Phoebe Baker, Lauren Irwin, Adelaide Mullin, Sam Worthington, Jess Pancake, Chris Holton	Herbicide Selection to Maximize Crop Safety of Vegetables Dr. Mark VanGessel	Building a Compost Pile and Troubleshooting Poultry Research Update
5:00 - 6:00 p.m.	Nitrogen and Sulfur Corn Timing, Double crop soybean population vs row spacing- Dr. Jarrod Miller	Watermelon, Cucumber, Pepper and Lettuce Trials Faba Bean Research Produce Safety Research Dr. Emmalea Ernest	Minimizing Risk-Maintaining Line of Separation Poultry Farm Safety Chicken Production Trivia
6:00 p.m.	*Dinner/Visit with Exhibitors*		

3rd Quarter Grain Marketing Club Meeting and Annual Grill Out
Wednesday, August 6th, 2025
Sponsored by First Citizens Community Bank
Redden State Forest Lodge
18074 Redden Forest Dr, Georgetown, DE 19947

The third quarter grain marketing club meeting will be held on April 6th at the Redden State Forest Lodge in Georgetown. The club will be grilling burgers and dogs for the event as this will be one of the last times to get together before the harvest season approaches. The program is open to all and is free of charge, however you must RSVP.

Topics will include:

- Grain Market Outlook and August USDA World Agriculture Supply and Demand Expectations
- Producer Marketing Costs and Logistics

To register, please contact Lisa Collins.

E: *lcollins@udel.edu*

P: 302-831-3402

Please contact Nate Bruce nsbruce@udel.edu with any questions.

Beginning Farmer Program
Every Tuesday 6:30-8:30pm
August 12th – October 28th
UD Cooperative Extension office
16483 County Seat Highway, Georgetown DE, 19947

The Delaware Beginning Farmer Program is for new and beginner farmers working in small-scale vegetable and/or fruit production throughout southern Delaware. Through hands-on training, demonstrations, workshops, and self-study, growers will spend an entire season learning and growing with Delaware Cooperative Extension! Explore the fundamentals of soil fertility and health, basic crop production, integrated pest management, food safety, farm marketing, and so much more!

8/12: Introductory Session
8/19: Creating Enterprise Budgets and Analyzing on Farm Needs
8/26: Basic Soil Fertility and Applying Fertilizers
9/2: Irrigation & Propagation Lab
9/9: Introduction to IPM and Pest Identification
9/16: Basics of Chemical Safety
9/23: Production Scheme & High tunnel Production
9/30: Introduction to Weed Management
10/7: Produce and Farm Marketing
10/14: Introduction to Produce Food Safety
10/21: Introduction to Plant Diseases & Disease Lab
10/28: Certificate Celebration Session

Register HERE or contact Karen Adams

If you have any questions about the program, please reach out to Lyndsie Mikkelsen at 302-650-3162 or at lyndsie@udel.edu

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2025 Agri-Tourism Bus Tour
Thursday, August 14th, 2025
University of Delaware and Delaware Farm Bureau
Two Pickup Locations
New Castle: Amtrak Parking Lot
10 Mopar Drive, Newark, DE 19952 Kent County: Dover Mall Parking Lot
1365 N Dupont Hwy, Dover, DE 19901

Join University of Delaware Cooperative Extension and Delaware Farm Bureau for an agri-tourism bus tour on Thursday, August 14th! Visit four southern New Jersey agri-tourism farms that feature farm markets, festivals, u-cut flowers, u-pick fruits, hayrides, and more! Lunch will be provided. Seating is limited and available by reservation only so please register ASAP. Registration will close on June 15th. Attendees can choose between two pickup locations in either New Castle County or Kent County.

To register, please use online weblink below:

https://defb.org/agritourism-bus-tour/

If you have any additional questions about registration, please contact Jaiden Cain.

E: jaiden.cain@defb.org

P: 302-697-3183

Please contact Nate Bruce nsbruce@udel.edu with any questions about the agri-tourism bus tour

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Nematode Field Day
Thursday, August 28th, 2025
3:00PM to 6:00PM
Carvel Research and Education Center, 16483 County Seat Highway, Georgetown, DE 19947

Interested in learning more about managing nematodes? A field day will be held at the Carvel Research and Education Center on August 28th from 3-6:00 PM. This field day will cover nematodes of concern in agronomic and vegetable crops, highlight ongoing research, and end with a boxed dinner. Details on registration coming soon!

Please contact Alyssa Betts, akoehler@udel.edu with any questions.

Share Your Experience with Farm Transition and Succession Plans

Farmers across the Northeast are invited to participate in an important survey about farm transition, succession planning, and generational change. Your input will help inform future programs and policies that support farmers as they navigate these complex and personal processes.

Key Details:

- The survey is open to all farm owners in the Northeast U.S.*
- It takes approximately 15–20 minutes to complete
- All responses are confidential

This survey is a collaborative effort by the PA Department of Agriculture, Penn State Extension, PA Farm Link, and the Northeast Regional Center for Rural Development (NERCRD).

The survey link is here:https://pennstate.qualtrics.com/jfe/form/SV_agyxK32aFHuM78G

Young Farmers and Ranchers Educational Program

Saturday, September 6th, 2025

University of Delaware Paradee Center

69 Transportation Road, Dover, DE 19901

Delaware Cooperative Extension and Delaware Farm Bureau are collaboratively hosting the first Young Farmers and Ranchers Educational Program on Saturday, September 6th. This program is geared towards young and small producers who are in the farming business already but looking to scale up their operation to the next level.

Topics will include:

• Enterprise Budgeting

• Market Research

• Succession Planning

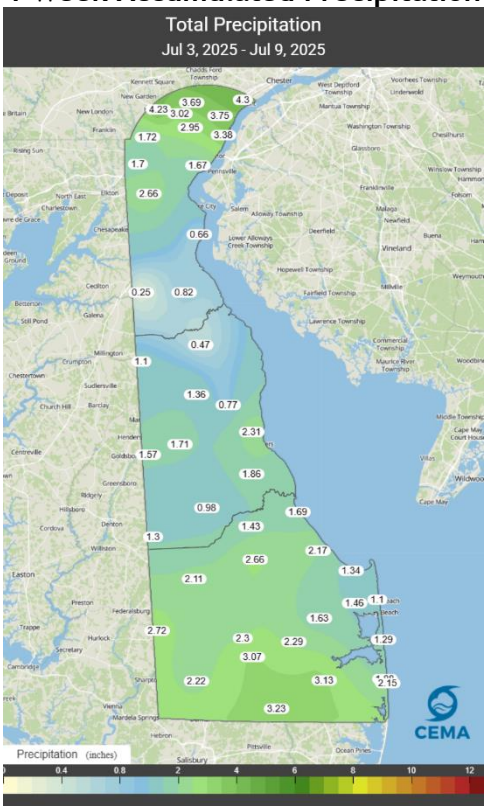
• Farm Diversification and Produce Production

• Agricultural Lending and Financial Considerations for Scaling

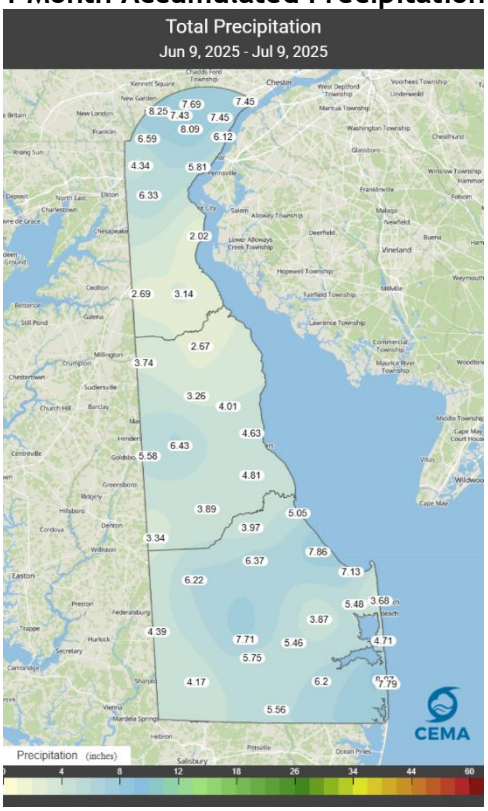
To register, please contact Lisa Collins. E: lcollins@udel.edu P: 302-831-3402 Please contact Nate Bruce nsbruce@udel.edu with any questions.

Weather Summary

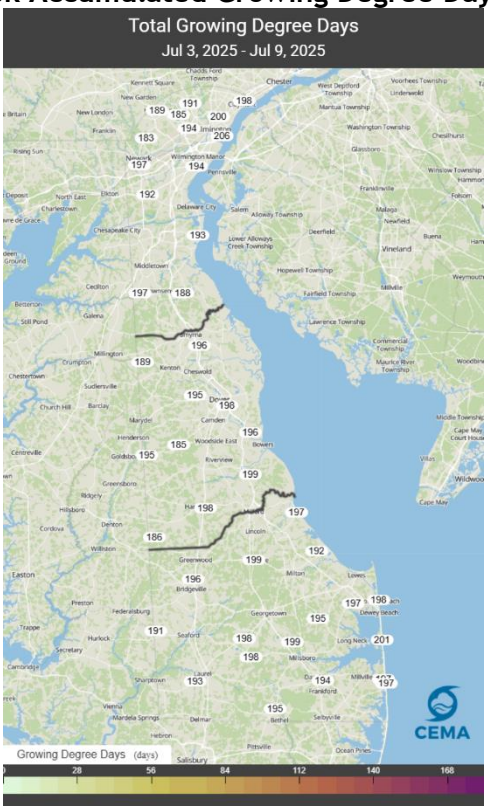
1 Week Accumulated Precipitation



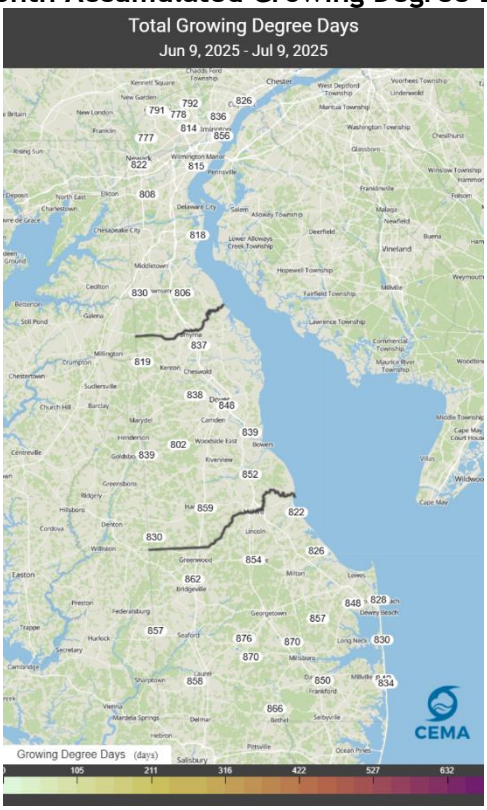
1 Month Accumulated Precipitation



1 Week Accumulated Growing Degree Day



1 Month Accumulated Growing Degree Days



Weekly Crop Update is compiled and edited by Drew Harris – Kent Co. Ag Agent and Lyndsie Mikkelsen - Fruit and Vegetable Agent

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