

WEEKLY CROP UPDATE



UNIVERSITY OF DELAWARE
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EXTENSION

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Vegetable Crops

TSWV Spotted in Delaware

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An instance of field tomatoes with Tomato Spotted Wilt Virus (TSWV) was reported in Delaware at the end of June. TSWV has also been reported in [New Jersey](#) this year and in [Maryland](#) the past several years. Resistant tomato and pepper varieties are available but a resistance-breaking strain of TSWV was found in New Jersey in 2022. TSWV is transmitted by thrips that have previously fed on an infected host plant. Many plant species, including common weeds (pigweed, chickweed, lambsquarters, black nightshade, prickly lettuce, galinsoga) and ornamental plants (chrysanthemum, petunia, impatiens, begonia) are potential hosts for TSWV.

Be alert to potential TSWV symptoms in tomatoes and peppers:

- Stunted growth
- Yellowed leaves
- Necrotic lesions on leaves (especially on tomato)
- Entire plant affected by symptoms (as opposed to only bottom leaves as is common with fungal diseases)
- Scattered distribution of symptomatic plants in the field
- Mottled or spotted fruit



E. Ernest, University of Delaware

Foliar leaf spots and yellowing on tomato caused by TSWV

If you notice these symptoms in tomatoes or peppers, the UD Plant Diagnostic clinic can test plant samples to determine whether TSWV is the cause. Contact your county Extension office to submit a sample.

TSWV infected plants will not recover. To manage the disease in the field or high tunnel, remove infected crop plants, control weeds in and around the field, and implement a season-long insecticide program to control thrips.

Vegetable Insect Scouting

David Owens, Extension Entomologist,
owensd@udel.edu

Sweet Corn

Our Monday trap counts decreased considerably over the week before. Please note though, that our traps are not all necessarily by silking sweet corn. Traps by silking sweet corn will give you the best, most accurate assessment of earworm activity for your field. Second, if you are early in the silking period, a tighter spray interval may be a good idea to protect those quickly growing silks. Thirdly, if today was day 3 on your program, you may want to treat on account of yesterday's heavy rain. Below are trap counts from Monday, June 30 and cover a 4-night span. **Traps are being checked today** but were not available in time for this week's edition. **If you would like counts, please call the IPM hotline this evening, 302 831-8851.**

I have a sneaking suspicion that they will be higher than the table below suggests. Many of our Monday moths looked fresh and spry. It may be that while many of these counts would suggest a 4-day interval, the counts that come in today might support a tighter spray schedule.

Begin scouting for Fall Armyworm in whorl stage sweet corn!

Trap counts from **Friday - Monday** are as follows:

Location	Blacklight trap capture	Pheromone Trap Capture
Dover	2	27
Wyoming	4	7
Magnolia	6	5
Milford	17	2
Harrington	2	0
Woodenhawk	2	3

Bridgeville	3	1
Concord	4	2
Georgetown	0	10
Laurel	6	4
Delmar		6
Lewes		42 (5 night)
Milton		8 (5 night)
Whaleyville, MD		18

Cucurbits

Striped cucumber beetle first generation adults are emerging out of the soil. They will be a pale white instead of a mature yellow color. This time of year, acetamiprid is our best material, but if the threat of Lepidopteran rindworm increases, Cyclaniliprole (Harvanta) does a decent job on cucumber beetles at its higher rates while providing excellent control of Leps. As a reminder, in the image below there is both cucumber beetle and Lep rind feeding. Cucumber beetle feeding (center and right) is going to look 'dirty' and rough. Lep feeding (left) is going to be broader and smooth.



Potatoes

This is a general reminder to harvest potatoes as quickly as possible to lessen the amount of time that wireworms have to drill into them.

Snap Beans

If any snap beans have been planted without an insecticide seed treatment, be sure to scout for potato leafhopper presence. The threshold is fairly high, 5 per sweep.

Fruit Crops

Fruit Insect Scouting

David Owens, *Extension Entomologist*,
owensd@udel.edu

Vineyards

Grape root borer has begun emerging from the soil! If you have pheromone traps or mating disruption or both, deploy them ASAP. Start scouting at the end of next week for pupal cases around the base of the vine sticking out of the soil. The old threshold when Lorsban was labeled was 5% of vines with a pupal shed. If you reach that, it means that next year we will need to take remedial action. The only thing labelled now is CBC America's resurrected mating disruption Isomate GRB. It will come in packs of 100 twist ties that can be tied on a trellis wire throughout a block, one pack should treat an acre.

Japanese beetle activity has increased sharply over last week. Grapes can tolerate 30% defoliation, and beetle feeding tends to look worse than it actually is. However, Japanese beetles also have a tendency to aggregate in spots and on certain varieties over others. Curiously, pyrethroids are not labeled for Japanese beetles in grapes, but they are for other crops. University of Georgia's Brett Blaauw has an excellent article on beetle management including efficacy ratings here:
<https://viticulture.uga.edu/2017/06/japanese-beetle-management-in-vineyards/>.

Cherries and Plums

Asiatic garden beetle is active, and this insect loves cherries and plums. It feeds at night but hides in the soil during the day. It is voracious on cherry. Look for leaves with narrow, rectangular

holes eaten out of the leaf margin going inward to the blade's midrib.

Stone and Pome Fruit

Continue monitoring for stink bugs and for first generation plum curculio. Wild cherry is about to ripen, and this is often a good trigger for stink bugs to move around. Some of our blacklight traps have been picking up high numbers of green stink bug and brown marmorated stink bug. Trap counts can be found on the UD Insect Trapping Program webpage.

Agronomic Crops

Agronomic Insect Scouting

David Owens, *Extension Entomologist*,
owensd@udel.edu

Alfalfa

Any alfalfa that was recently cut should be swept for potato leafhopper to ensure that it does not damage regrowth. Recently cut alfalfa less than 6 inches in height has low thresholds, near 1-2 per 10 sweeps.

Soybean

Dectes stem borer has been emerging from the soil. In years that I have monitored for them, their populations have peaked between July 7 and 14. We have passed 1500 degree days and will be at 1800 by mid-week. Kelly Hamby, Alan Leslie, and I put together a Dectes fact sheet that significantly expanded on a Joanne Whalen fact sheet:

<https://extension.umd.edu/resource/dectes-stem-borer-management-soybeans-fs-1196/>.

Please note that there are suggestions for insecticide use and decision making in the fact sheet as a matter of literature and label review but, based on a lot of work that Joanne and Bill Cissel did, I do NOT generally recommend an application for this pest. However, read the Decision Making and Management sections of the fact sheet.

Scout for defoliation, particularly on recently planted double crop fields. Virginia reported

some spots this week with heavy grasshopper feeding. We may have a bit more grasshopper this year on account of last year's dry late summer/fall. Asiatic garden beetle is active now, and sporadically causes damage to soybean.

Full season beans should be scouted for stink bug. Stink bugs begin moving into soybean between R2 and R4. Thresholds for seed production are 2 per 15 sweeps, for regular beans 4-5 per 15 sweeps and for Plenish soybean, I suggest (on account of price difference, longer dry period, and not research based) using a threshold of 3.5- 4 bugs per 15 sweeps.

Field Corn

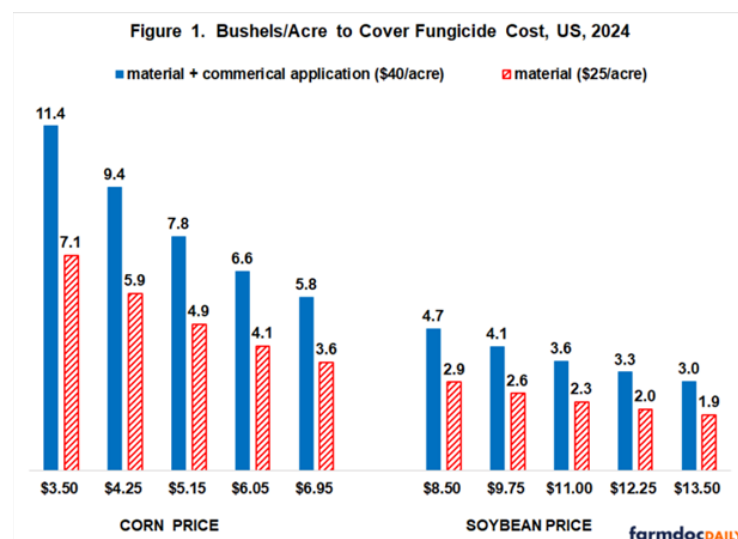
Much of our corn crop is approaching tassel push or is at early silking, V14-R1. Stink bug thresholds are lowest in V-14-VT corn. Look for stink bugs between the leaf above the primary ear and the leaf below the primary ear. Thresholds are based on number of bugs per 100 plants. At late whorl through tassel push, the threshold is 10 bugs per 100 plants, but at R1-R2 (silk to blister), it is 28 bugs per 100 plants. Keep in mind stink bugs tend to be edge species, meaning that if you go in even just a little bit, their numbers tend to drop off quickly. Any corn field adjacent to small grain or headed cover crop should be scouted. Tax ditches and other weedy non-crop habitat area can also harbor stink bugs. It is my firm belief that the vast majority of insecticides tank mixed with fungicides are applied to fields in which stink bugs are not present in numbers great enough to justify treatment and this application is made too late to effect meaningful control. Furthermore, lambda cyhalothrin is an extremely common pyrethroids used, but we have seen in many spray trials it not work as well on brown stink bugs, our most common corn stink bug. IF you have a field that is near threshold and IF that field is going to be treated before silking, consider bifenthrin.

Fungicide Use and Low Commodity Prices

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

There are very few production variables a producer has control over. The only variable that a producer truly has control over, and perhaps the most important, is the cost of production. With commodity prices continuing their downward trend, and recent regional production issues, producers around the area are going to be vamping up fungicide applications in the weeks to come. An article written by the University of Illinois explored fungicide usage for corn and soybeans and the bushels required to justify the expense at declining commodity prices.

Yield response from fungicide use can be highly variable. The economic study evaluated 212 corn studies and 240 soybean studies to determine yield responses for each crop after fungicide usage. The meta-analyses found corn yield responses were between 3.7 bushels per acre to 6.2 bushels per acre while soybeans had an average yield response of 1.6 bushels per acre. These average yield response numbers are below break-even at current crop prices. Below is a table that shows the number of bushels required to cover a fungicide expense of \$40.00 / acre (application and chemicals) and \$25.00 / acre (chemicals only).



At a corn price of \$4.25 per bushel, a yield response of 9.4 bushels per acre is required to cover the cost of chemicals and application. For just the cost of chemicals, a yield response of 5.9 bushels is needed to cover the cost of the expense. Soybeans are more giving, due to the higher price. A yield response of 3.6 bushels is required to justify the cost of chemicals and application while a response of 2.3 bushels is needed to cover the cost of chemicals only.

This article strictly looked at metadata to determine the breakeven bushels needed to cover a fungicide expense. There are quite a few variables that exist with determining yield responses of fungicides such as severity of fungal infection, precipitation, irrigation, and variety that should be considered on your farm before deciding. Here is a link to the article:

<https://farmdocdaily.illinois.edu/2024/05/fungicides-use-in-a-lower-price-environment.html>

General



THE SPINED SOLDIER BUG - A BENEFICIAL STINK BUG

Veronica Yurchak, Vegetable Specialist,
University of Maryland; vjohnso4@umd.edu

This week's feature beneficial is the spined soldier bug (SSB), a predatory stink bug that can be found on virtually any crop or garden plant. SSBs are generalist predators that feed on a diversity of medium to large soft-bodied insects,

including caterpillars, other stink bug nymphs, and beetle larvae. Using their harpoon-like beaks to inject digestive enzymes into unsuspecting prey, SSBs are able to subdue insects many times their own size.

These beneficial predators can be differentiated from other, plant-feeding stink bugs by the presence of pointed projections along the front outer margins of the prothorax, or pointed "shoulders" (Figure 1). Eggs are bronze colored with long projections circling the top of each egg (Figure 2a) and are typically laid in clusters of 20-30 eggs per egg mass. Nymphs are wingless with round, somewhat flattened bodies and distinctive orange, brown, and black markings (Figure 2b). Both nymph and adult stage SSBs are predatory



Figure 1. SSB adult on sweet corn leaf. The white circle highlights the characteristic pointed "shoulder"

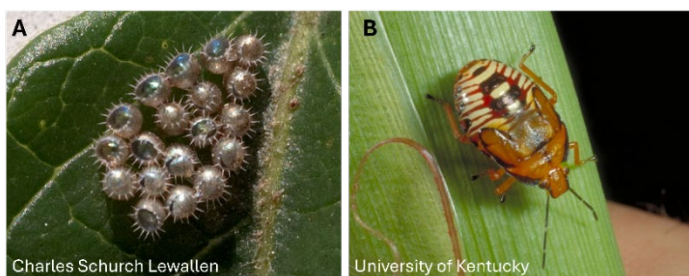


Figure 2. SSB eggs (A) and late instar nymph (B)

SSBs are native to North America and are common natural control agents of a variety of plant-feeding insect pests. They undoubtedly contribute to the regulation of various insect pest populations and have been recorded feeding on over 90 different insect species. Reported prey include the larvae of many important agricultural pests such as the European corn borer, Mexican bean beetle, diamondback moth, corn earworm, beet armyworm, Colorado potato beetle and flea beetle. One study recorded SSBs as consuming more than 100 late-instar fall armyworm larvae over the equivalent of a season, while another showed that commercial releases of SSBs, along with another species of predatory stink bug, reduced Colorado potato beetle infestations by up to 50%. Natural infestations of SSBs can be encouraged by limiting broad spectrum pesticide applications whenever possible and encouraging more diverse field habitats. SSBs are also sold commercially for release in various field and greenhouse cropping systems through several suppliers of biological control organisms.

GUESS THE PEST! June 27th Answer

*Veronica Yurchak, Vegetable Specialist,
University of Maryland; vjohnso4@umd.edu*

Congratulations to Leah Fronk and others for correctly identifying this as thrips damage. Thrips problems typically increase in many different vegetable crops as they migrate out of recently harvested small grains and hot summer weather sets in. When controlling thrips, particularly western flower thrips, be sure to rotate insecticide chemistries to reduce the risk of resistance development. Lannate, Radiant,

and dimethoate provide excellent control of most thrips. Neonics including imidacloprid, acetamiprid, and dinotefuran, as well as Entrust, Torac, Rimon, and Beleaf also work well. Radiant and Beleaf are also very good options for western flower thrips.



GUESS THE PEST! July 3rd

Veronica Yurchak, Vegetable Specialist,
University of Maryland; vjohnso4@umd.edu

This week's picture features a moth I have been consistently catching in low numbers over the past few weeks in a pheromone trap in Queenstown, MD.



Click on the Guess The Pest logo to enter in your guess on the google sheet.



Or follow this link:

https://docs.google.com/forms/d/1oz5-yCm8xifZtDlvZ-vPbd8a0GR-V6H9ddb9fhAyyzY/viewform?edit_requested=true

Announcements

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

PASTURE, RANGELAND, AND FORAGE (PRF) INSURANCE SIMULATION STUDY

Are you a **Livestock farmer** or **Hay producer** from Delaware, Maryland, New York, or Pennsylvania?

Would you like to learn more about **Pasture, Rangeland, and Forage (PRF) insurance** while earning up to **\$185**?

Join our **online research study** at the University of Delaware!

- **What you'll do:** Participate in a 30-35-minute online simulation where you'll learn about PRF insurance and make a series of decisions as if you were enrolling in the program
- **What you'll earn:** All participants will receive **\$10**, and 1 in 6 will be randomly selected to receive up to **\$185**, depending on the decisions made during the simulation
- **How you'll be paid:** Choose from a Walmart or Amazon e-gift card, or PayPal payment

Your participation will help researchers better understand how farmers make insurance decisions and improve outreach and education around PRF.

To participate or learn more, visit:

<https://forms.gle/17VTkwusFqdzL6yAA>

Questions? Contact:

Aisha Emory

ahoggard@udel.edu | (302) 831-6243

Mid-Atlantic Ornamental Horticulture Day

Thursday, July 17th, 2025

Longwood Gardens

1001 Longwood Road, Kennett Square, PA 19348

Please join us on Thursday, July 17, 2025, for a day of discussions and tours, which will explore the flourishing ornamental horticulture industry in the Mid-Atlantic.

The event, sponsored by the Philadelphia Society for Promoting Agriculture and the Pennsylvania Horticultural Society, will begin at 10:00 a.m. sharp in Longwood's beautiful new Fountain Room with a panel discussion among representatives of the PA, DE, NJ and MD Landscape and Nursery Associations.

Following the panel discussion, guests will enjoy one of the two following guided tours—Longwood's floriculture production greenhouse, where the magic begins; or the new West Conservatory, Bonsai Pavilion and the recreated Roberto Burle Marx Cascade Garden (the greenhouse tour will be capped at 50 guests).

After lunch in the Fountain Room, we will travel to nearby North Creek Nurseries, an industry leading grower of perennials and native plants, for a guided tour by owner Steve Castorani. North Creek pioneered the production of Landscape Plugs and grows 250 million plants per year from seed, cuttings, division, and tissue culture.

There is no charge for this event, but space is limited by organization to the first 100 registrants.

For registration and/or questions, please email Robert Grenfell at robertgrenfelljr@gmail.com

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.

Carvel Field Tours August 14th, 2025

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

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.

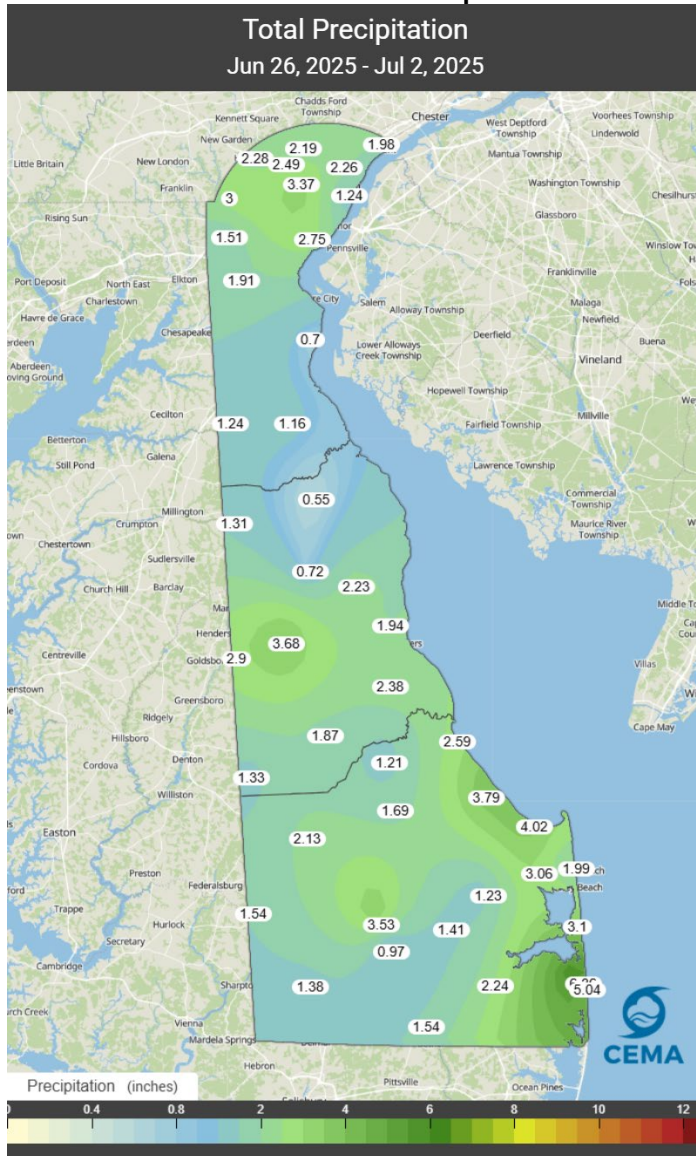
E: lcollins@udel.edu

P: 302-831-3402

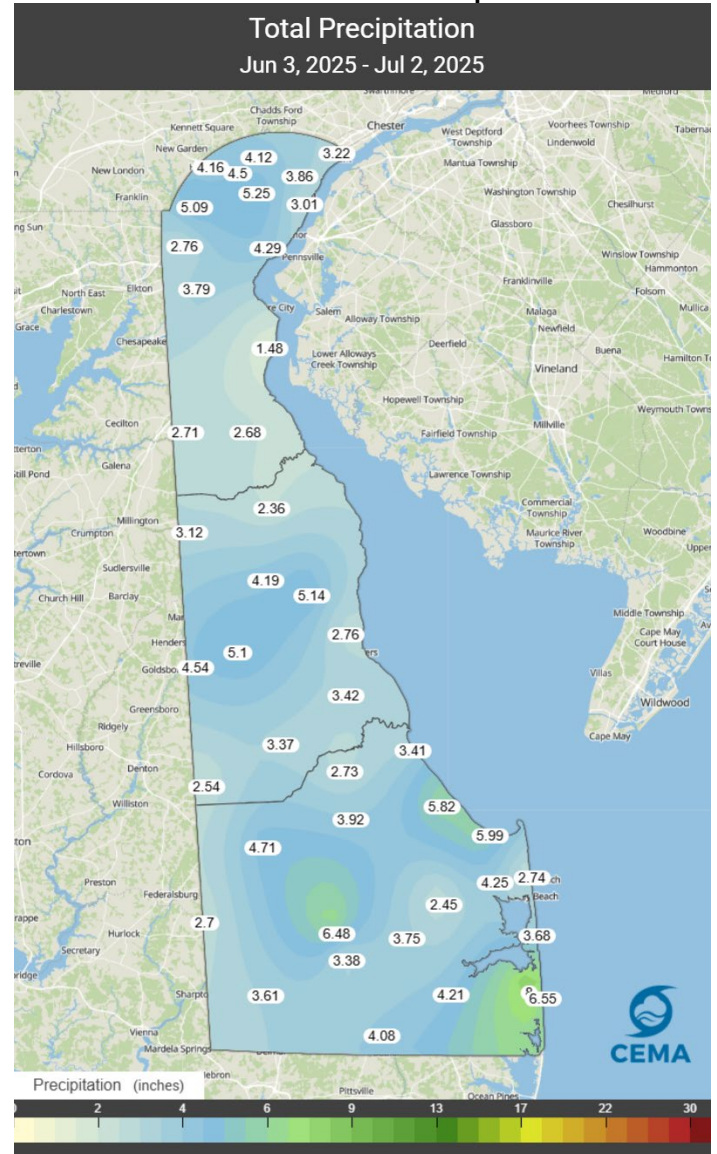
Please contact Nate Bruce nsbruce@udel.edu with any questions.

Weather Summary

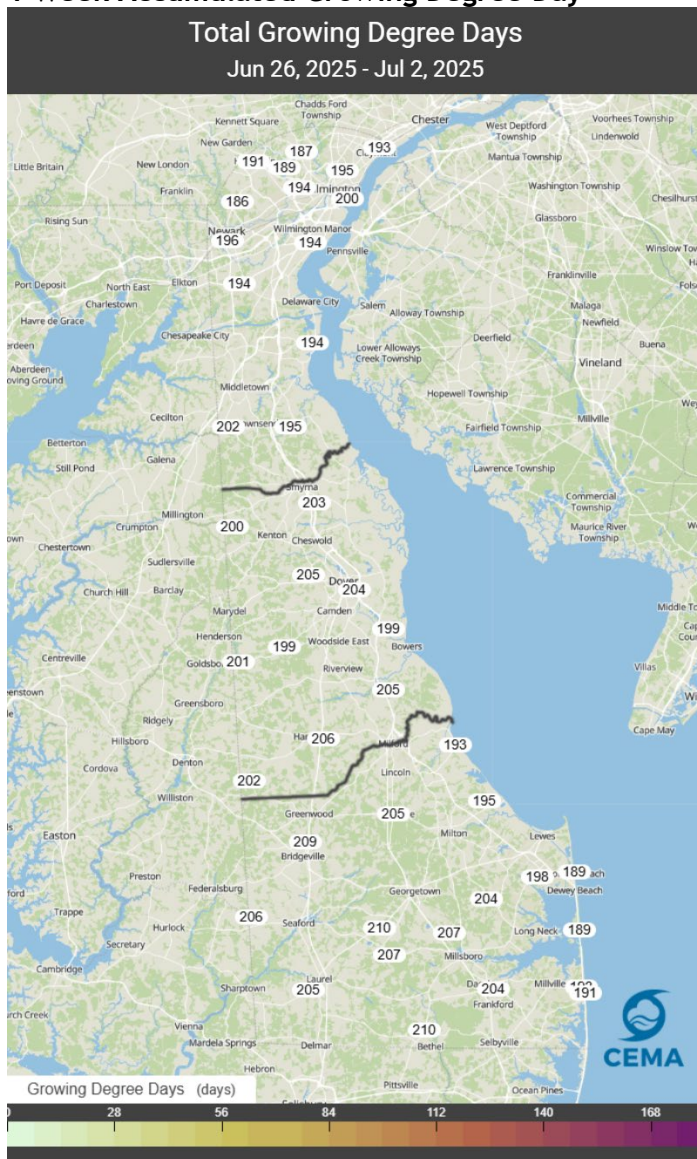
1 Week Accumulated Precipitation



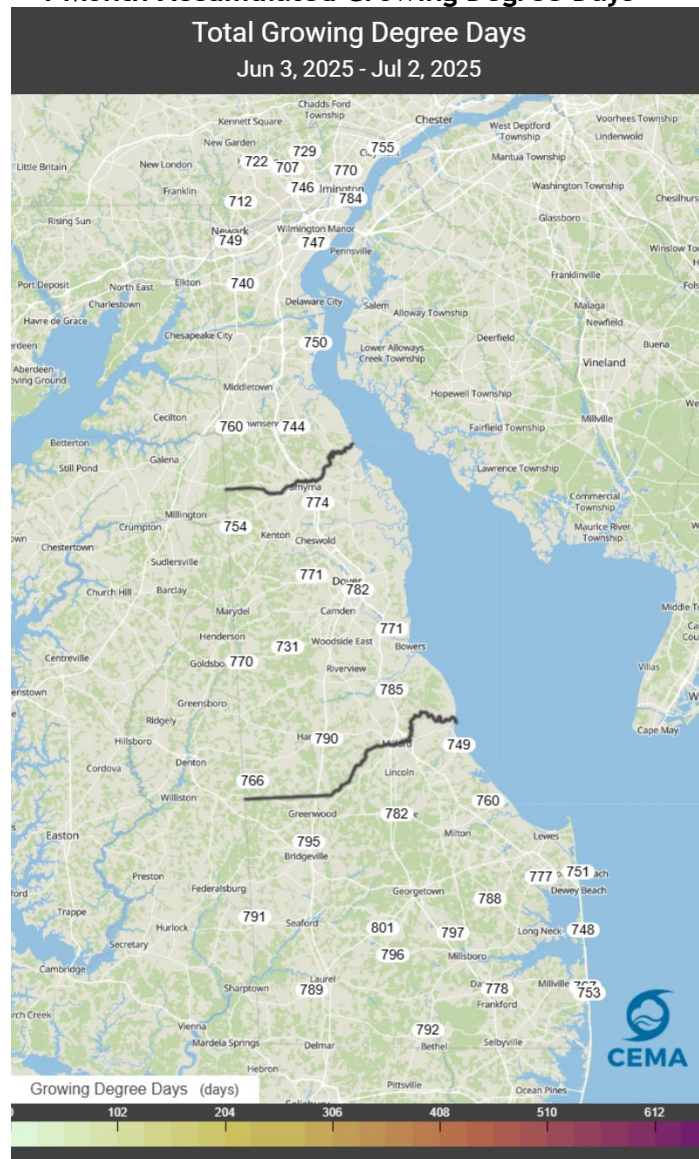
1 Month Accumulated Precipitation



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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