

WEEKLY CROP UPDATE



UNIVERSITY OF DELAWARE
COOPERATIVE
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Last Weekly Issue of WCU for 2024!

This is the last weekly issue of Weekly Crop Update for the 2024 season! There will be a monthly update to the WCU Blog with notes, articles, and announcements from October through February. Notification of the monthly updates will be sent to our email subscribers.

Thank you to the Extension specialists, agents, and other contributors that have made this newsletter the tremendous success it has been this season; their insight and knowledge has made WCU a truly valuable resource! If there were WCU articles you found beneficial and specifically helped you throughout the season, please let the writer know. A big thank you to Karen Adams for making sure the printed versions of WCU got to the mailbox on time.

Kind regards,
Emmalea Ernest, Drew Harris, and Lyndsie Mikkelsen- WCU Editors
wcueditors@udel.edu

Vegetable Crops

Vegetable Crop Insect Scouting

David Owens, Extension Entomologist,
owensd@udel.edu

Tomatoes

Continue treating for worms. Soybean looper activity at Carvel is very high in tomato plots, which is unusual. Loopers are difficult to kill, with some of the most effective materials being Proclaim and Avaunt. Pyrethroids provide very little control.

Sweet Corn

Pheromone trap counts continue to slowly decrease. The pheromone trap network has been generously supported by DDA Specialty Crop Block Grant FB 22-04 and USDA NIFA SCRI 2023-51181-41157. We will continue monitoring pheromone traps for another couple of weeks.

Location	Blacklight Trap	Pheromone Trap
Dover	0	3
Harrington	0	9
Milford	4	3
Rising Sun	0	0
Wyoming	0	22
Bridgeville	1	7
Concord	7	---
Georgetown		
Greenwood	1	3
Laurel	4	11
Milton		28 (7 days)

Cole Crops

All cole crop worm pests are active. At Georgetown, cross striped worms, corn earworm, beet armyworm, and fall armyworm are active and are the most damaging or difficult to control. Imported cabbageworm is very active. Curiously, we have seen a few cabbage looper. Thresholds decrease during early cupping and early head formation stages.

Spinach and Lettuce

Continue scouting for beet armyworm and beet webworm. Pyrethroids alone are not recommended for either species. Scout also for aphids. Aphid populations tend to increase in early Fall before they seek overwintering sites. Natural enemies can also be problematic in leafy greens because the aphid mummies left behind by parasitoids are more easily seen by consumers and harder to wash off the leaves. There are many aphid materials with good to excellent efficacy, and a fair number of aphids recommended insecticides also control worms.

2024 Vegetable Research Photo Retrospective

Emmalea Ernest, Extension Fruit & Vegetable Specialist; emmalea@udel.edu

Many of our 2024 field research projects are completed but a few will still be in the field this winter. Over the next few months, I will be preparing trial reports and presentations for winter meetings. I look forward to sharing some interesting and useful results during the Fruit and Vegetable Growers Association of Delaware's educational meetings during Ag Week. The Fruit Session will be on Monday, January 13, the General and Fresh Market sessions will be on January 14, and the Processing Session will be January 15.

In the meantime, I am sharing some photos from this past season's trials. Thank you to the Carvel farm crew and the Veggie Team (seasonal employees Ketsia Murat, Lily Hearn, Arely Arriaga-Gonzalez, Brayden Hearn, Twyla Beachy and Sam Cooke, vegetable Extension agent Lyndsie Mikkelsen and technician Frank Reith.)



There were good yields in the processing pea trial this year.



We tested almost 500 faba bean varieties from around the world to see if any might work as a crop for overwintered or spring planted production in Delaware.



E Ernest, University of Delaware

We trialed 18 white supersweet fresh market sweet corn varieties at two planting dates.



E Ernest, University of Delaware

We identified some new heat tolerant lettuce varieties in trials transplanted in June and July. We also tested whether silver or white plastic mulch is best for summer lettuce production.



E Ernest, University of Delaware

So many snap beans! We trialed round and flat bush snap beans for yield and heat stress tolerance. We also tested 11 climbing snap bean varieties.



E Ernest, University of Delaware

We are testing new UD breeding lines in baby, fordhook and pole lima trials. I am also freezing samples for sensory evaluations in the coming months.



E Ernest, University of Delaware

Biofumigant mustard that we planted in September and October of 2023 overwintered and we are repeating the experiment this fall to see if we get similar results.



M. Issacs, University of Delaware

The 2024 Veggie Team: (back row, left to right) Frank Reith, Lily Hearn, Ketsia Murat, Lyndsie Mikkelsen, and Arely Arriaga-Gonzalez, (bottom

row left to right) Twyla Beachy, Sam Cooke, Brayden Hearn, and Emmalea Ernest.

Agronomic Crops

Agronomic Crop Insect Scouting

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

Small Grains

Wheat and barley will soon be going in the ground. Crops planted before the 'Fly Free Date' (October 3 for New Castle, October 8 for Kent, and October 10 for Sussex) may benefit from a neonicotinoid seed treatment for both hessian fly and for aphid management. I have not heard of significant hessian fly activity on Delmarva for a very long time, but it is worth keeping in the back of the mind. Many wheat varieties have some degree of resistance to Hessian fly. If you are concerned about it, reach out to your seed dealer to find out if your variety's response is known.

Scout for aphids this fall. The three species of aphids that get into small grain are bird cherry oat aphid, English grain aphid, and greenbug. Greenbug and English grain look very similar. Greenbug tends to have a turquoise blue stripe down the back, and it will have short, green cornicles. English grain aphids have long, black cornicles. It can be difficult to differentiate small nymphs. Greenbug saliva is phytotoxic to the plant and thresholds for this aphid are lower than the other two. Bird cherry oat aphid is generally associated with more severe BYDV. Thresholds during the seedling stages from southern states are 1-2 bird cherry oat aphids per row foot or 10 greenbugs per row foot. Once we move into mid-late November, those thresholds are variable. Some states use a threshold of 6 aphids per row foot and others use a threshold near 20 aphids per row foot. If a foliar treatment is necessary, pyrethroids do a good job on all aphids in small grains. For barley, Endigo can be used and will provide even longer

residual. Dimethoate (wheat only) and Sivanto are also options.

We had a lot of BYDV in 2023, and I suspect it was due to an unusually warm February. BYDV incidence was less this year, but it was still present. Wheat varieties may have different levels of susceptibility to BYDV, and neonicotinoid seed treatments probably won't pay for themselves in wheat, based on some long-term data from southern states. Barley is different, and more susceptible to BYDV, and I would suggest being more aggressive on aphids in barley and especially in malt barley.

The best compilation of research on aphids and barley yellow dwarf can be found here:

<https://smallgrains.ces.ncsu.edu/wp-content/uploads/2024/02/BYDV-in-the-SE-ANR-1082-compressed.pdf?fwd=no>.

Preparing for 2025: Small Grains Disease Management

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

We blinked and somehow small grain planting is upon us. We had more Fusarium head blight in 2024 than the past few seasons. It is hard to predict what we will see in 2025, but disease management decisions can begin even prior to planting:

Planting Date: While we do not typically observe Hessian flies, planting after the Hessian fly-free day (Oct 3 - New Castle County; Oct 8 - Kent County; Oct 10 - Sussex County) is still a good reference point to reduce issues with viruses spread by aphids, like Barley Yellow Dwarf Virus (BYDV). Due to the sporadic nature of BYDV infection, it is difficult to quantify yield loss, but studies have indicated around 0.5% loss of yield for each 1% increase in infection. Typically, we associate fall infections as more damaging to yield potential than spring infections. However, in recent mild winters, we have also occasionally observed aphid activity in February which can result in significant stunted areas from BYDV,

particularly in malting barley (Figure 1). While we cannot control what happens once planted, we can adjust the planting date. If you are planting before the Hessian fly-free day, make sure to select a variety with tolerance to BYDV and follow IPM practices for aphid management. Early planting can also allow fungal pathogens more time to infect and overwinter. Seed treatments can be helpful for controlling soilborne seedling pathogens like *Pythium*, *Rhizoctonia*, and *Fusarium*.



Figure 1: Stunted yellow patches due to Barley Yellow Dwarf Virus

Site conditions: Small grains planted into corn stubble are at higher risk for Fusarium Head Blight (FHB) because the fungus (*Fusarium graminearum*) can infect both corn and the small grain crop. The FHB pathogen can overwinter in corn fodder left in the field allowing for more rapid development and spread of spores under favorable spring conditions. When possible, planting small grains behind soybeans or vegetable crops reduces the amount of overwintering inoculum and risk of FHB the following spring. It takes more preparation to

have soybeans that are ready for early harvest, but could be worth planning for, especially with crops like malting barley or high value wheat contracts. In cases where corn rotation is the only option, plowing under corn stubble or minimizing fodder at the soil surface before planting can help to reduce the amount of fungal tissue overwintering, but it will still be important to monitor spring weather conditions. If spring conditions are wet and humid during flowering, a fungicide application will likely be needed. The Fusarium Risk Tool wheatcab.psu.edu can aid in-season fungicide decisions.

Variety: Variety selection is a key aspect of integrated disease management. In the case of wheat, varieties may have varying levels of resistance to powdery mildew, leaf rust, stripe rust, Fusarium head blight, and other diseases. When deciding what varieties to plant, consider what diseases have been an issue in the past, and when possible, select resistant varieties to reduce the risk of disease development. Fusarium head blight remains the most concerning disease in our area. While complete resistance is not available, many wheat lines have FHB resistance genes that provide partial resistance. Lines with partial resistance typically have reduced disease severity and lower levels of mycotoxin (DON) accumulation in the grain. The University of Maryland conducts an inoculated misted nursery trial to test varieties for FHB/DON. In these trials, the fungal pathogen is added to the field prior to flowering and plants are misted daily to create the perfect environment for disease development. Wheat plants in this field are under a “worst case scenario” for disease, so FHB index and DON levels tend to be much higher than would be seen in a natural field setting, but this allows for separation of varieties to see which have the lowest levels of disease and DON content. UMD [2024 results](https://bpb-us-e1.wpmucdn.com/blog.umd.edu/dist/a/434/files/2024/07/2024_Wheat-variety-trials_Disease-data_MD.pdf) (https://bpb-us-e1.wpmucdn.com/blog.umd.edu/dist/a/434/files/2024/07/2024_Wheat-variety-trials_Disease-data_MD.pdf) have been posted.

Stands and nutrition: High plant populations tend to create favorable environments for disease issues due to reduced airflow and increased canopy humidity. High levels of fertilizer promote lush, rapid growth that can favor disease; keeping fertility balanced reduces the chance of disease development.

By keeping these factors in mind, you can hopefully get your crops off to a healthy start and have less disease pressure in the spring.

Monthly Grain Market Outlook

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

Corn prices may have reached their bottom during the month of September with futures holding steady in the low \$4.00 per bushel range. Corn futures traded in the \$0.10 - \$0.20 cent range throughout the month while harvest is well underway in the Delmarva region. Corn carryover is still high and looms over the market but may be built into current prices at this point. Reports out of the Midwest corn belt show a significant crop with marginal land yielding higher than expected bushels per acre. Even with harvest underway, it might be wise to start looking at corn production expenses for 2025 considering the possibility of a protracted period of lower corn prices. Soybean prices have been fun to watch in the month of September thus far with futures trading in the \$0.10 to \$0.40 cent range throughout the month. The Midwest is experiencing dry weather currently which is having a negative impact on pod fill. In addition, American soybeans are becoming more competitive in the export market with the US dollar weakening after the federal reserve announced the 0.50 basis rate cut last week and the Brazilian currency rallying against the dollar. Good margins and technical buying have also helped the current uptrend in soybean prices. Regionally, new crop soybeans just made it over the \$10.00 per bushel hurdle this week with basis. It will be interesting to see how much staying power is behind this current rally. August and September have been two of the best

months to market wheat. This seems to be the case this year as well with wheat futures rebounding in recent weeks. Futures have traded in the \$0.15 - \$0.35 range. Current wheat prices are encouraging but it is critical to evaluate wheat expenses for the 2024 - 2025 season.

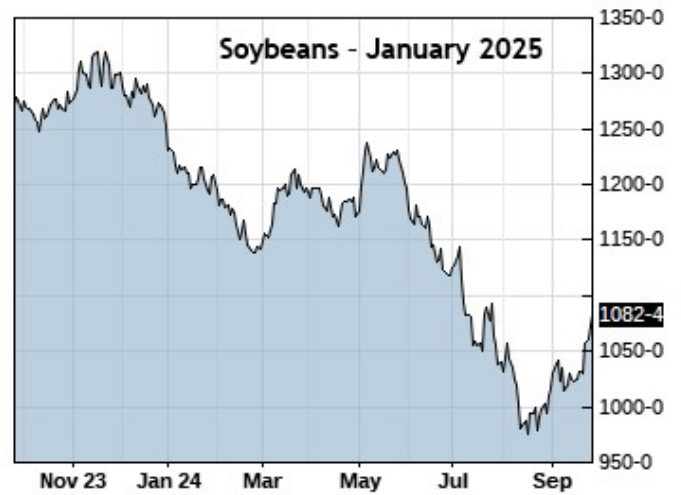
The August USDA (World Agriculture Supply and Demand Estimates) WASDE report was published on September 12th. The report was bearish on corn but anchored down on the August estimates for soybeans and wheat. Estimated planted corn acres remained the same as the August estimate at 90.7 million acres. Corn acres harvested also remained the same at 82.7 million acres. Estimated yield per acre increased from 183.1 bushels to 183.6 bushels. Total production increased from 15,147 million bushels to 15,186 million bushels. Imports, domestic demand, ethanol demand, and exports all remained unchanged from the August estimate. Beginning stocks decreased from 1,867 million bushels to 1,812 million bushels. Ending stocks decreased from 2,073 million bushels to 2,057 million bushels. The estimated farm season average price fell from \$4.20 per bushel to \$4.10 per bushel. The September report left soybean acres planted unchanged from the August estimate at 87.1 million acres. Estimated soybean acres harvested were also left unchanged at 86.3 million acres. Estimated yield harvested per acre remained the same as the August estimate at 53.2 bushels per acre. Production, imports, crushings, exports, seed and residual demand all remained unchanged from the August estimates. Beginning stocks fell by 5 million bushels from 345 million bushels to 340 million bushels. The report lowered ending stocks from 560 million bushels to 550 million bushels. The average farm season price remained unchanged at \$10.80 per bushel. The September USDA WASDE left wheat acres planted the same as the August estimate at 46.3 million acres. Area harvested also remained unchanged at 37.9 million acres. Estimated yield harvested per acre stayed the same as the August estimate at 52.2 bushels per acre. Production, imports, food demand, seed demand, and exports all remained unchanged from the August estimate. Beginning stocks

stayed the same as the August estimate at 702 million bushels. Ending stocks also remained unchanged at 828 million bushels. The farm season average price did not change from the August estimate at \$5.70 per bushel. The next USDA WASDE will be released on October 11th.

Brazil is still experiencing a significant drought. The drought has resulted in increased export costs as waterways essential for bare shipping capacity have been impacted. Climatically though, Brazil is a country with definite rainy seasons. And although the country is experiencing drought now, the rainy season that occurs in October is right around the corner. China's economy is experiencing severe stagnation. Chinese Gross Domestic Product (GDP) has been behind the government's target of five percent. The economy has lagged to recover since the Covid pandemic and Chinese consumers have altered purchasing in the country to navigate the difficult economic times. How this will impact agricultural imports has yet to be seen, even after China committed to purchase US soybeans this year. Ukraine has increased agricultural exports despite the war with Russia. Russia struck a civilian grain exporting vessel with a missile recently. The attack was a reminder of the ongoing conflicts impact on the global food supply.

Corn Futures





Soybean Futures



Wheat Futures



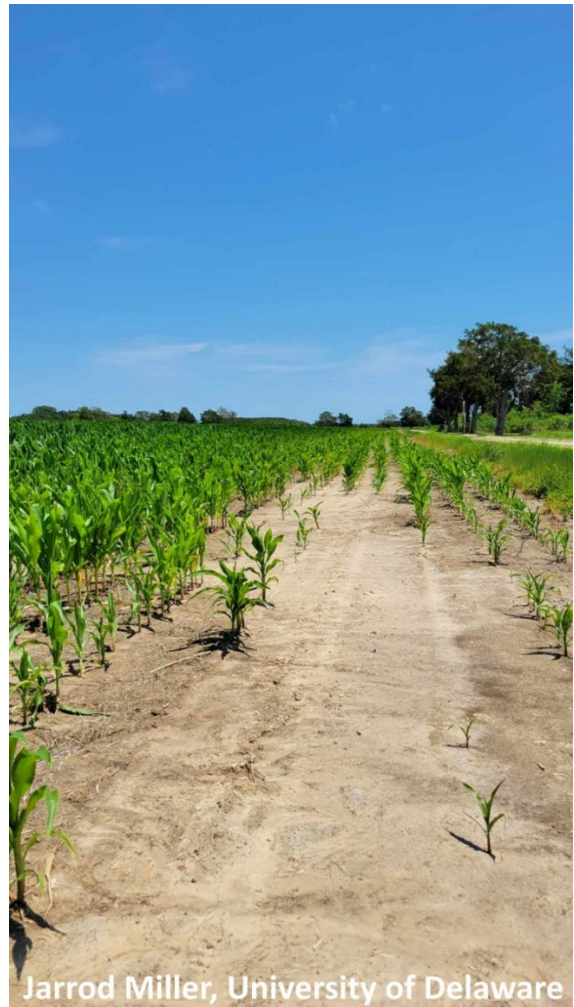
General

Guess The Pest - September 20th Answer

David Owens, *Extension Entomologist*,

owensd@udel.edu

Congratulations to Richard Wilkins and several others for correctly identifying the sneaky cause of these stunted plants as salt injury. I fear this is something that we will need to be increasingly vigilant about and make some choices as to whether to try to remediate damage or to set aside the portion of the field into some sort of conservation program. Dr. Jarrod Miller has been studying saltwater intrusion into fields and is a tremendous resource for anyone facing this problem, he can be reached at jarrod@udel.edu.



We hope you have enjoyed another year of Guess the Pest Challenge- thank you to everyone participating each week! Stay tuned this fall as award winners are announced.



Announcements

Smart Choice/ Smart Use Health Insurance™

Fall Series Programming- Online

Please join us for one, or all, of the workshops in our Fall Series of health insurance literacy workshops! Health insurance is confusing, but the Smart Choice / Smart Use Health Insurance™ program can help. We'll cover everything you need to know about insurance, including:

- How do you select a health insurance plan that works for you and your family?
- What is Medicare and what should you know about health care as you get older?
- What actions can you take to get the most out of your health insurance?
- How can you understand healthcare costs and estimate how much you will need to pay for care?

Workshops are on Tuesdays and are offered at two times, from 12PM - 1PM and from 6PM - 7PM. Over the course of the series, will cover a variety of different topics. You can select as many workshops as you would like to attend. Once you have registered, you will be sent the Zoom connection information.

The schedule for the series of webinars is as follows:

October 8th: Health Insurance Basics - this workshop will help you understand how health insurance plans

differ and how you can select a plan that is a good fit for you and your family.

October 15th: Healthcare in your Senior Years - this workshop will cover how health insurance changes as you get older. It will also cover the basics of Medicare and how it differs from traditional health insurance.

October 22nd: Smart Actions - this workshop will review seven actions you can take to make sure you are using your health insurance to get the care you need at the lowest cost.

October 29th: Understanding and Estimating Costs - this workshop will review how health insurance costs work and walk you through the process of estimating your own out of pocket healthcare costs.

Scan the QR code below or use the registration link to sign up for one or multiple sessions!



<https://docs.google.com/forms/d/e/1FAIpQLScY-21okeGDUg7Jj9boBfgv7ESHsWxAHw8XBP34OdLxHE74RQ/viewform>

Category (03) Ornamental and Turf Pre-Exam Training

October 16, 2024, 8:00 AM to 12:00 PM

Delaware State Fair Grounds,

AG Commodities Building

Murphy St. Harrington, DE 19952

The Delaware Department of Agriculture in conjunction with University of Delaware Cooperative Extension is excited to bring to your pre-exam training designed to assist with the content connected to the DDA Ornamental & Turf (Category 03) exam. The pre-training will NOT cover all of the material on the exam. The training will consist of 6 categories of emphasis and will cover identification, control, and various best management practices (BMP's) that

applicators need to know or study as part of the category (03) Ornamental & Turf exam. The presenters will be Amanda Strouse (DDA) and John Emerson (UD). Both the training and the exam will be at the AG Commodities Building at the DE State Fairgrounds.

Use the following link to register:

<https://www.udel.edu/0012295>

Webinar Series on Cover Crops

August 21st to October 23rd, 2024

Wednesdays 12:00 to 12:30

Online

The Northeastern Cover Crop Council is hosting a series of webinars on cover crops including species selection, planting considerations, and management considerations. Webinars are from noon to 12:30 p.m. every Wednesday until October 23rd. Certified Crop Advisor continuing education credits are available. All webinars are recorded so if you were not able to join live, the information is still available. More information and registration is available at https://northeastcovercrops.com/conferences_webinars/

2024 TURFGRASS PLOT WALK AND SPRAYER CALIBRATION

October 18th, 2024

4:00:00 PM to 5:30 PM Newark, DE

Registration Link:

<https://udel.ungerboeck.net/prod/emc00/PublicSignIn.aspx?&aat=35596e6756313169315161334577736776373151554d5477446b6668334153423072716c5a642f4d6164673d>

Contact jremer@udel.edu for further information

UD BIOFUMIGANT MUSTARDS FIELD DAY

Wednesday, October 29th, 2024,

3:00-6:00 p.m.

University of Delaware

Carvel Research and Education Center

16483 County Seat Highway, Georgetown, DE

Join University of Delaware Extension Specialists as we discuss recent research exploring the use of biofumigant

mustard crops. Discussion will include fall v. spring planting, optimal planting dates, nitrogen studies, and disease control. Live demonstrations will show the steps necessary for terminating and incorporating biofumigant crops to maximize the release of glucosinolates, the compounds that break down to have activity in controlling pathogens.

Presenters:

Emmalea Ernest, Extension Vegetable & Fruit Specialist
Jarrod Miller, Extension Agronomist
Alyssa Betts, Extension Plant Pathologist
Shiv Singla, PhD student

Topics include: variety assessment, planting date options, nitrogen rates and fertility management, integrating biofumigant planting before a cover crop system, nematode control, Phytophthora control.

Please call 302-831-3328 or email adams@udel.edu to register by Oct 22. Registrations after this date will not be guaranteed a boxed dinner.

Delaware Grain Marketing Club Meeting

Thursday, October 30th, 2024,

6:00-8:00 p.m.

University of Delaware

Carvel Research and Education Center

16483 County Seat Highway, Georgetown, DE

The last 2024 Grain Marketing Club meeting will be on October 30th at the Carvel Research and Education Center in Georgetown. Jody Lawrence from Strategic Trading Advisors / Helena Agri-Enterprises will discuss markets. Jody provides commentary to a grain marketing letter that is received by 3500 recipients in 31 states. Jody has been working with Helena since 2002 and provides the newsletter to Helena customers and speaks at national meetings. A Mission BBQ dinner will be provided at the event.

To register, please contact Lisa Collins.

E: lcollins@udel.edu

P: 302-831-3402

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

Mid-Atlantic Crop Management School



Credit Opportunity Available for Carvel Field Day Online Activity

Recordings of the Agronomic Crop and Fruit and Vegetable Tours held at Carvel on August 7, 2024, are now available along with an opportunity to earn credits by watching the videos.

<https://www.udel.edu/academics/colleges/canr/carvel/current-research/2024-field-crop-tours/>

Each tour contains five videos representing the stops on each tour. To obtain credit for a full tour, all five videos for that tour must be viewed. Viewers are required to submit the two keywords that appear randomly in each video (a total of 10 keywords per tour). Keywords will appear as closed captions for approximately 10 seconds. **The opportunity to earn credits will expire on December 31, 2024.** Visitors may earn credits for one or both tours. Use the google document from the link above to submit for credits.

Please verify your credits have been received by contacting Karen Adams, adams@udel.edu after **January 3, 2025.**

Watermelon and Pumpkin Grower Biofumigation Study Survey Online Activity

Watermelon and pumpkin growers, we are seeking survey responses to evaluate your familiarity with using biofumigation to reduce phytophthora and root-knot nematodes in these crops. We would like to hear about your experiences with this topic. The survey should take no more than five minutes to complete. Here is the link to the survey:

https://delaware.ca1.qualtrics.com/jfe/form/SV_02i7KXdPzDhbgS

Contact Nate Bruce at nsbruce@udel.edu or 302-362-7616 if you have any questions.

Grain Marketing Producer Survey Online Activity

Grain marketers, the University of Delaware, in collaboration with the Universities of Kentucky and Nebraska Lincoln, seeks your input on how you make grain marketing decisions on your own operation. The survey will help inform us to understand the risks and factors involved in making these decisions. In addition, data will be used to help us refine outreach education on grain marketing. Your individual survey responses will remain confidential as data will be aggregated. The survey will take 10 minutes or less to complete. Below is both a link to the survey and a QR code.

Link to Qualtrics survey:

https://delaware.ca1.qualtrics.com/jfe/form/SV_0JpiRk4gHsN2yHQ

QR Code:



Contact Nate Bruce at nsbruce@udel.edu or 302-362-7616 if you have any questions.

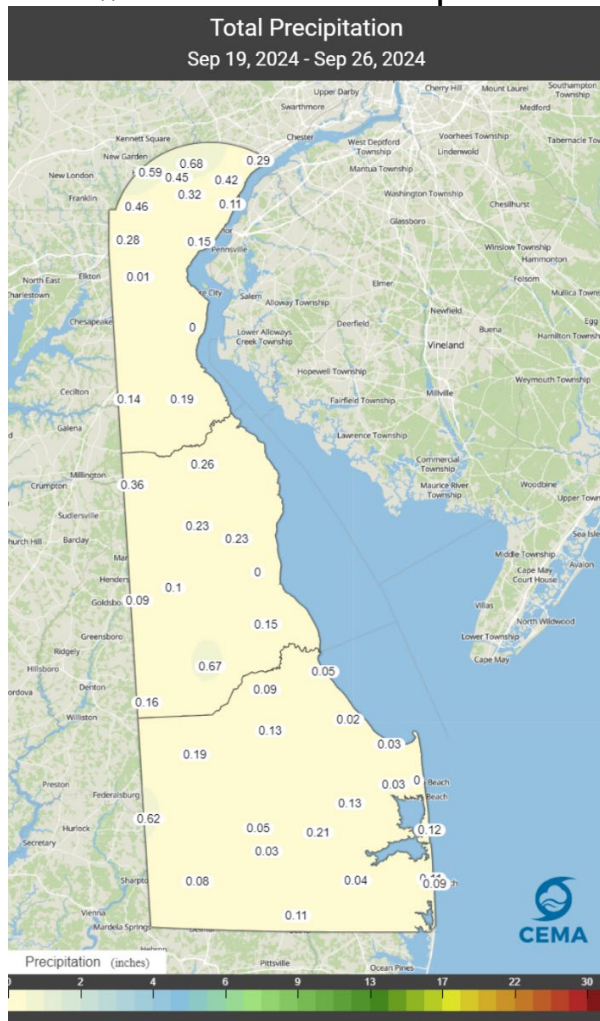
Maryland Pesticide Disposal Program

Maryland Department of Agriculture Pesticide Regulation Section is sponsoring a Pesticide Disposal Program. Registrations are available now and can be obtained by contacting their office at 410-841-5710 or on the website at <https://mda.maryland.gov/plants-pests/Pages/Pesticide-Disposal-Program.aspx>.

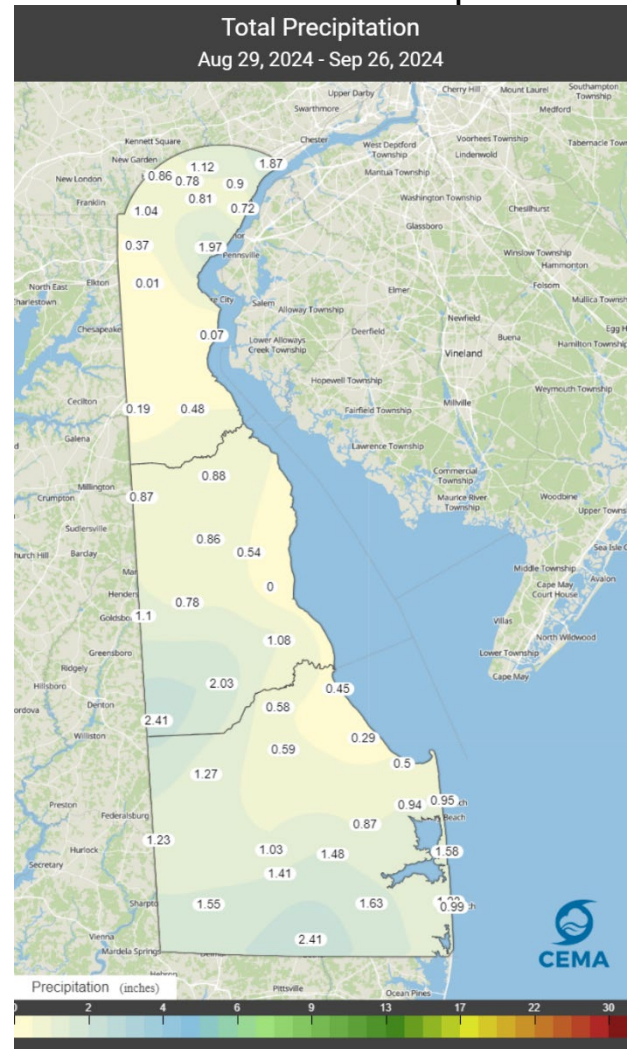
This program is FREE to all ag producers on a first-come, first-served basis. Commercial pest control businesses and applicators, including public agencies generally cannot participate. Limited space may be available.

Weather Summary

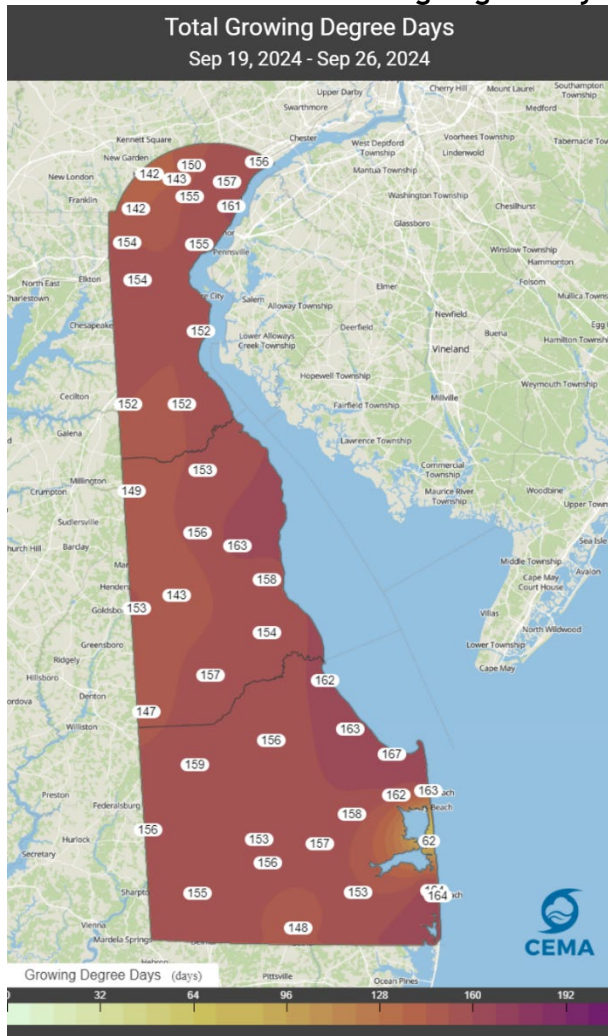
1 Week Accumulated Precipitation



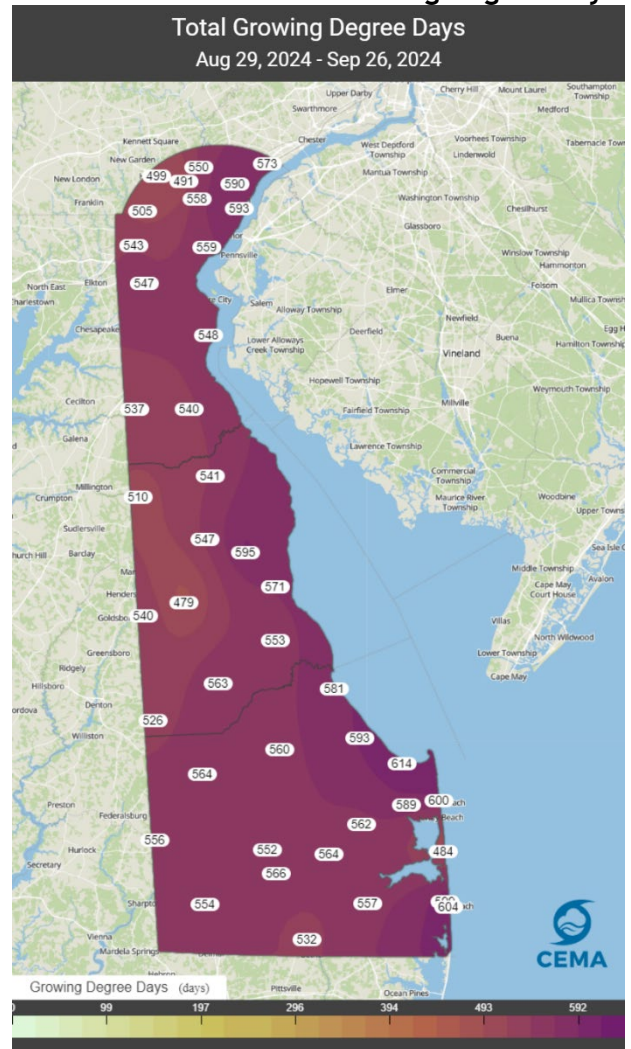
1 Month Accumulated Precipitation



1 Week Accumulated Growing Degree Days



1 Month Accumulated Growing Degree Days



***Weekly Crop Update is compiled and edited
by Emmalea Ernest - Extension Fruit &
Vegetable Specialist, Drew Harris - Kent Co.
Ag Agent and Lyndsie Mikkelsen - Fruit and
Vegetable Agent***

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