WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

Volume 29, Issue 22 **August 20, 2021**

Vegetable Crops

Vegetable Crop Insect Scouting – *David Owens, Extension Entomologist,* owensd@udel.edu

Lima Bean
Scout now for **tarnished plant bug**, **corn earworm**, and **loopers**. Thresholds for tarnished plant bug are 15 in 50 sweeps. Fairly specific options include Beleaf, Transform, and Dimethoate if not hand harvesting. Pyrethroids and Lannate are also labeled and will also have activity against earworm and looper. Earworm are flying heavily now. Thresholds are 1 worm per 6 row feet. Pyrethroids and organophosphates can flare up loopers, so be careful to scout for them if a field later on especially if a field is treated with a broad spectrum insecticide.

Pumpkins
Scout for **aphids** in pumpkins. Heavy infestations can deposit enough honeydew on the fruit for sooty mold to grow, making the pumpkin unsightly. Our most common species in cucurbits is the melon aphid, *Aphis gosypii*. Aphids can also transmit mosaic virus. We have numerous aphid products available from 5 mode of action classes. Some of them are aphid specific such as Sivanto, Sefina, PQZ, Fulfill and Beleaf, and others have broader worm or beetle activity, such as Harvanta. Reducing pyrethroid applications will help preserve natural enemies in the field and reduce the likelihood or severity of aphid outbreak.

Sweet Corn
Corn earworm trap counts have spiked over the last 7 days. Most trapping locations in our network and University of Maryland's network are capturing between 20 and 75 per night. Temperatures remain stubbornly high, and moth resistance in pyrethroid vial tests is fairly high. Taken together, along with wet weather, 2-day spray intervals on fresh silking fresh market sweet corn is probably warranted for most locations to be on the conservative side. Also, if you are growing Bt sweet corn, corn earworm is only susceptible to Attribute II sweet corn. Attribute needs to be treated just like a non-Bt sweet corn. Performance sweet corn slows larvae down but does not prevent their damage. At harvest there may be 3rd and 4th instars at the tips as opposed to multiple 6th instars with extensive damage. To be conservative, it would probably be best to treat Performance more like a non-Bt. It may be more forgiving and require slightly less treatment intensity. Trap counts from Thursday are as follows:

Trap Location	BLT - CEW	Pheromone CEW
	3 nights total catch	
Dover	10	141
Harrington	0	74
Milford	7	166
Rising Sun	8	85
Wyoming	5	68
Bridgeville	3	74
Concord	3	76
Georgetown	1	78
Greenwood	1	67
Laurel	3	130
Seaford	5	---

Lewes	---	133
Millsboro	4	19

Watermelons
We may still need a **rindworm** spray this week or next to prevent rind feeding damage by Leps, including earworm. Moths are attracted to flowers, and while earworms love to eat the blossoms, the can also be aggressive on rinds. As a reminder, earworms are less susceptible to pyrethroid applications. **Aphids** are also flying right now, and although I have not received any reports of significant aphid populations, be sure to keep them in mind. A good sign of aphids is wet spots on the plastic from honeydew secretions.

Sulfur, Calcium and Boron for Cole Crops

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

Apart from recommended NPK fertility programs, growers of cabbage, broccoli, cauliflower, Brussels sprouts, kale, and collards need to pay attention to sulfur, calcium, and boron in their cole crop fertility programs.

In vegetable crops, sulfur removal is generally in the 10-20 lb/A range. Mustard family crops (cole crops, mustards, turnips and radishes) remove between 30 and 40 lbs/A of sulfur.

Most of the sulfur in the upper part of the soil is held in organic matter. Upon mineralization, sulfur is found in the soil as the sulfate ion ($SO4^{2-}$) which has two negative charges. The sulfate ion is subject to leaching, especially in sandy textured soils (loamy sands, sandy loams). It does accumulate in the subsoil but may not be available for shallow rooted vegetables.

Sulfur can be added by using sulfate containing fertilizers such as ammonium sulfate, potassium sulfate, and K-mag (sulfate of potassium and magnesium). It is also a component of gypsum (calcium sulfate). In liquid solutions, ammonium thiosulfate is often used as the sulfur source. Sulfur is also found in manures and composts. For example, broiler litter has about 12-15 lbs of sulfur per ton.

Calcium deficiency is most commonly seen as tipburn of cauliflower, cabbage, and Brussels sprouts. This problem can cause severe economic losses. Tipburn is a breakdown of plant tissue inside the head of cabbage, individual sprouts in Brussels sprouts, and on the inner wrapper leaves of cauliflower. It is a physiological disorder which is associated with an inadequate supply of calcium in the affected leaves, causing a collapse of the tissue and death of the cells. Calcium deficiency may occur where the soil calcium is low or where there is an imbalance of nutrients in the soil along with certain weather and soil nutrient conditions, such as high humidity, low soil moisture, high potash or high nitrogen, all of which can reduce calcium availability. Secondary rot caused by bacteria can follow tipburn and heads of cauliflower can be severely affected.

Some cabbage and cauliflower cultivars are relatively free of tipburn problems. Check with your seed supplier for tipburn resistant varieties and choose tipburn resistant varieties where possible. Manage liming so that soil pH is above 6.0 and calcium levels are optimal. Avoid using only ammonium forms of nitrogen, and ensure an adequate and even supply of water. Adjust planting date so that head maturation occurs during cooler temperatures. In general, calcium foliar sprays have not been shown to be effective for controlling tipburn incidence.

Cole crops have a high boron requirement. Symptoms of boron deficiency vary with the cole crop. Cabbage heads may simply be small and yellow. Most cole crops develop cracked and corky stems, petioles and midribs. The stems of broccoli, cabbage and cauliflower can be hollow and are sometimes discolored. Cauliflower curds become brown and leaves may roll and curl. It is important to note that cole crops are also sensitive to boron toxicity if boron is over-applied. Toxicity symptoms appear as scorching on the margins of older leaves.

It is recommended in broccoli and kale to apply 1.5-3 pounds of boron (B) per acre in mixed fertilizer prior to planting. In Brussels sprouts, cabbage, collards and cauliflower, boron and molybdenum are recommended. Apply 1.5-3 pounds of boron (B) per acre and 0.2 pound molybdenum (Mo) applied as 0.5 pound sodium

molybdate per acre with broadcast fertilizer. Boron may also be applied as a foliar treatment to cole crops if soil applications were not made. The recommended rate is 0.2-0.3 lb/acre of actual boron (1.0 to 1.5 lbs of Solubor 20.5%) in sufficient water (30 or more gallons) for coverage. Apply foliar boron prior to heading of cole crops.

Severe tipburn in cabbage.

Unusual Foliar Blight Found in Southern Maryland Organic Tomatoes

– *Jerry Brust, IPM Vegetable Specialist, University of Maryland*, jbrust@umd.edu; *Ben Beale, St. Mary's Co. Extension Agent*, bbeale@umd.edu; *Karen Rane, Plant Diagnostician, University of Maryland* rane@umd.edu

A very unusual and seldom seen tomato foliar blight was found by an intrepid county educator in Southern Maryland last week. This disease is called Rhizoctonia Foliar blight caused by *Rhizoctonia solani*. The symptoms of Rhizoctonia foliar blight are brown necrotic lesions on blighted tomato leaves that are found in the top of the canopy (Fig. 1). These blighted leaves usually have a white mass of mycelia on the edge of dark (necrotic) lesions (Fig. 2) and can look very much like late blight. It is believed that the primary inoculum is aerially dispersed basidiospores. Other than that, little is known about this uncommon disease.

Symptoms appear during hot, wet weather in tomato plantings that have **NOT had any fungicides applied** to them. Fungicides, such as mancozeb, chlorothalonil and possibly others commonly used to protect tomato foliage from fungal diseases, are also reportedly effective against Rhizoctonia foliar blight. This is likely the reason that this disease is rarely seen, but it might become more common in the future in organic tomato systems. Growers, both conventional and organic, should keep watch for these foliar symptoms and seek a diagnosis, to make sure late blight is not overlooked.

Figure 1. Rhizoctonia leaf blight on tomato

Figure 2. Rhizoctonia foliar blight of tomato with white mycelia on edge of necrotic area

Corky Root Disease in Tomatoes – *Jerry Brust, IPM Vegetable Specialist, University of Maryland*, jbrust@umd.edu; *Ben Beale, St. Mary's Co. Extension Agent*, bbeale@umd.edu; *Karen Rane, Plant Diagnostician, University of Maryland* rane@umd.edu

Corky root is caused by the fungus *Pyrenochaet lycopersici*. Tomato plants affected with corky root may appear stunted and generally lack vigor. Later the infected plants may wilt during the day and recover at night, along with a slight yellowing and senescence of older leaves. Branches on mature plants may die back from the tips. Roots show dark brown, banded lesions (Fig. 1) with bark-like cracking and a loss of fine roots and cortex tissue. As the disease develops even the larger roots become infected and develop extensive brown lesions that are somewhat swollen and cracked along their length, giving them a corky appearance (Fig. 2). The disease is most commonly seen in tomato, but host range studies indicate that other vegetable crops, such as pepper, eggplant cucumber and melons, are susceptible.

Figure 1. Corky root disease on tomato roots showing dark brown banded lesions (arrows)

Figure 2. Corky root disease on tomato root showing dark lesion that is cracked and swollen

The corky root pathogen produces microsclerotia on the roots of host plants that can survive in the soil for up to 15 years. In the presence of a susceptible host the microsclerotia will germinate and infect host roots. Optimum soil temperatures for root infection are between 60-68°F, which means that most initial infections occur early in the growing season. Aboveground symptoms may not develop until later in the season when temperatures increase and the compromised root system cannot absorb enough water to meet plant needs.

Research has shown that reduced incidence of corky root disease is associated with use of plant -based composts (as opposed to composted

manure) as well as lower concentrations of NH_4-N and higher concentrations of calcium in the soil. Crop rotation out of solanaceous and cucurbit crops, and delaying planting until soils warm to 68˚F, may also help in managing this disease, but these two cultural practices are not practical for most growers. For tomato, grafting scions onto corky root resistant rootstocks has been used effectively - there are several root stocks that give complete or high resistance to corky root disease listed at the vegetablegrafting.org website. For high tunnels the best management for the disease is probably either grafting or steam sterilization; the latter also gives the added benefits of reducing other soilborne diseases and weeds.

Fruit Crops

Fall Planting Considerations in Plasticulture Strawberries

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

September is when plasticulture strawberries are planted on Delmarva. Plug plants grown from strawberry tips by nurseries and greenhouses in the region are most commonly sourced by growers. Northern grown tips from Canadian nurseries often are used by plug growers to reduce diseases such as Anthracnose. While nurseries and plug growers are diligent in producing quality planting material, at times, problems can arise. In addition, planting practices can greatly influence the success of the planting. The following are some considerations to be successful with plasticulture strawberry establishment.

Plug Conditions

When receiving plug plants, growers should inspect for plug conditions. It typically takes 4 weeks for tips to root but this depends on the growing conditions and tip condition. If tips are not fully rooted then the plugs will not pull properly and roots can be damaged in transplanting. In contrast, root bound transplants may dry out and be difficult to water. If dry plugs are transplanted they have a high probability of dying after transplanting. Blank plants that do not have a crown should be discarded and not planted

Diseases and Mites

Nurseries and plug growers seek to produce disease-free plants. However fungal diseases such as Anthracnose can be brought in on plants. More difficult to detect are viruses. Inspect plants for virus symptoms such as abnormal leaf color, mottling, curling, or leaf distortions. Suspect plants should be sent to disease diagnostic laboratories for testing and should not be planted. If any plants appear to be weak, cut through a few of them, and look for signs of discoloration in the crown. Reddish or reddish-brown tissue is an indication of anthracnose crown rot, phytophthora crown rot, or the more recently identified foliar and crown disease Pestalotiopsis. Growers should also inspect plants for mites and treat with a miticide prior to planting if detected.

Planting Depth

Strawberry plugs are very sensitive to planting depth – too deep and plants will die, too shallow and plants will dry out. Plugs should be placed so the plug is fully in the ground up to the crown, firmed with the surrounding soil, with no part of the plug exposed and with no soil covering over the crown.

Water

Growers in plasticulture with drip irrigation often will try to irrigate bed before planting so they are fully saturated. This is not possible in our sandy soils with a single drip line in the middle (double lines will have more fully wetted soil). In addition, there is a risk of leaching nitrogen out of the strawberry root zone. It is preferred to add water during transplanting and then overhead irrigate a few hours for several days to establish plants until roots can reach wetted areas from the drip tape.

Fall Fungicides

With wetter, warmer fall weather conditions and the use of overhead irrigation in establishment, there is a risk of foliar and crown diseases. To control phytophthora in susceptible varieties, apply mefenoxam through the drip system 15 days after planting followed up with foliar applications of a phosphite product (Phostrol, Prophyte, etc.) 2 to 3 weeks later.

If anthracnose crown rot or Pestalotiopsis is suspected, captan and Switch both have good efficacy, and should be applied 2 or 3 times during the fall being sure to get good coverage into the crown area.

Agronomic Crops

Agronomic Crop Insect Scouting – *David Owens, Extension Entomologist,* owensd@udel.edu

Sorghum
A report of **sugarcane aphid** activity came in from Kent County this week. This aphid has the potential to cause significant yield loss as late as the soft dough stage. Thresholds range anywhere from 40 to 140 per leaf, depending on soil moisture conditions. Thresholds are also quite a bit higher for tolerant sorghum varieties.

Earworm moths are also in pollinating sorghum heads. Begin checking heads for earworm next week. There is a sorghum headworm threshold calculator available on Texas A&M's website: https://extensionentomology.tamu.edu/sorghum-headworm-calculator/.

Hemp
Be prepared to treat hemp in the next week or so for **earworm**. Our best labeled materials are viruses such as Gemstar or the Bt formulations that are labeled. In tests by Virginia Tech, Gemstar performed a bit better than Bt.

Soybean
Green cloverworm populations have increased a bit this week. Keep an eye on defoliation, and if defoliation reaches 20% and defoliators are present, a treatment is advisable. Small, below threshold populations of **corn earworm** are widely present in soybean, and in double crops in particular. We flushed several moths out of fields while sweeping earlier this week. Moths are attracted to the flowers as a food source. Earworm control with pyrethroids alone is not a guarantee. In small plot spray trials on Delmarva conducted by Virginia Tech and University of Delaware in various crops over the last two years, Hero and Baythroid have outperformed other pyrethroids. Premix options include Besiege and Elevest. Other options include Radiant, Blackhawk, Intrepid Edge, Steward, and Vantacor (also Prevathon). A few **soybean looper** are showing up in fields as well. Last year we were able to put a soybean looper trial out in a field treated with Lorsban for corn earworm. Diamide treated plots had reduced looper pressure while pyrethroid treated plots had more looper pressure than the untreated check. Steward and Hero performed well in the trial, although I will caution against pyrethroids for loopers; other researchers have used Hero in the past to flare loopers. If **stink bugs** are present, Lorsban and Elevest are probably the best worm/bug materials.

Diseases in Sorghum – *Alyssa Koehler, Extension Field Crops Pathologist*; akoehler@udel.edu

A broad range of diseases can affect sorghum. Over the course of the season, root rots, foliar pathogens, stalk rots, and head molds can all impact yield potential. One of the most common diseases in our area is Sorghum Anthracnose caused by *Colletotrichum* species. Symptoms include red to tan lesions on the leaves or stems, stalk rot, or grain infection. Fungal structures resembling pincushions (acervuli with setae) can be observed within the lesion with the aid of a hand lens or other magnification (Figure 1). In susceptible lines, yield loss of up to 50% has been reported. Last year was very conducive for disease and I saw quite a few fields with high levels of disease. In addition to foliar symptoms, I was also seeing disease on panicles and grain, with serious yield loss observed in these cases (Figure 2). The rain of the past week two weeks and high humidity are setting up the right environmental conditions for disease to be observed again this year. Resistant hybrids, seed treatments, and fungicides can be used to try to manage this disease. Work out of Virginia Tech has shown that fungicides (priaxor or headline) were most effective at protecting yield in diseased fields when applied at flowering. Each percent increase of anthracnose disease severity can account for 0.5-1.25 bu/ac of lost yield potential (https://apsjournals.apsnet.org/doi/abs/10.1094/PDIS-10-18-1867-RE). Scouting is important to determine the level of disease prior to

flowering. Some studies have shown that the timing of disease onset is just as or more important than final severity, especially in wet, humid years. As a field approaches flowering, if disease is absent or low, a fungicide application is often not profitable for sorghum.

After grain fill, head molds become another concern. Head molds can cause pre- and post-harvest damage, reduce yield, and some of the fungi infecting the grain may form mycotoxins that can lead to quality issues. Chemical control of head mold fungi is typically not effective, insect control may be a better target since head molds are often associated with insect damage. Keeping mature grain from getting wet also helps to reduce head mold issues, but this can be a challenge depending on environmental conditions near the time of harvest. Hybrids are available that vary in susceptibility to anthracnose and head molds. Selecting moderately resistant lines over susceptible or very susceptible lines can help to reduce yield loss and mycotoxin contamination.

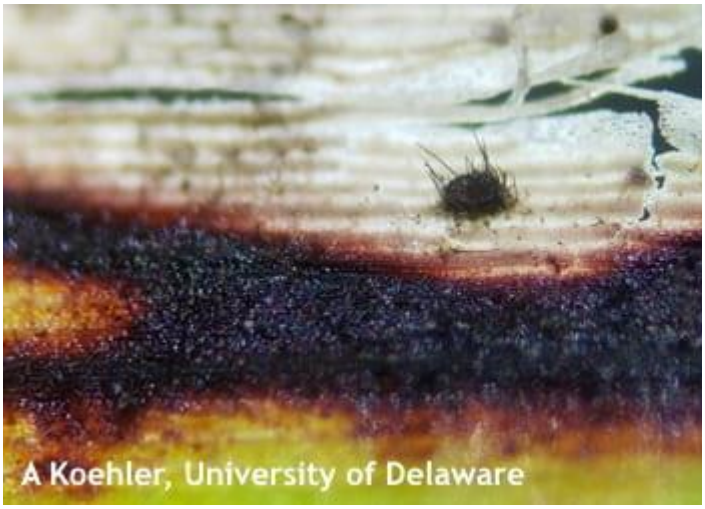


Figure 1. Sorghum Anthracnose lesion magnified to view fungal structures

Figure 2. Sorghum head with very little grain following the grain phase of Sorghum Anthracnose

Following Corn Reproductive Maturity -

Jarrod O. Miller, Extension Agronomist, jarrod@udel.edu

Many early planted corn fields should now be at R5 (dent). A refresher on watching the milk line was posted last year on the Delaware Agronomy Blog and is reprinted below: https://sites.udel.edu/agronomy/2020/08/20/checking-for-corn-maturity/

At this point in the season many fields may have started to show signs of dent, but this is a slow transition that sits between two reproductive stages. At the dough stage (R4), the milky fluid is drying down, giving the kernel a soft, dough like consistency (Figure 1). As some of these kernels continue to dry and starch forms at the crown, a dent will form on the outer edge of the

kernel. However, to be at the actual dent stage (R5), almost all of the kernels should have the dent feature.

It is important to differentiate between dough and dent stages, where kernel development is still contributing to yield. Not until full maturity (R6, black layer) will your maximum yield be realized. At the dough stage, kernels will still have a dull yellow color, the shelled cob is pink, and the kernels will have a pasty consistency. Some kernels will begin to show dent (Figure 1), but the dent stage start when nearly all of the kernels are fully dented, a hard starch forms at the crown, and kernels will have the typical shiny, dark yellow color we expect of mature corn. For many hybrids, the cob may also be dark red at the dent stage.

The milk line forms shortly after corn plants reach dent (Figure 4). The kernels mature towards the cob and the dry starch line progresses inward. As you watch the milk line progress, keep soil moisture at adequate levels until the kernel has fully matured and black layer (Figure 3) is present. Many of our ears at the station began R4 (dough) last week, and at least one field has begun the R5 dent stage. These fields were planted from late April through mid-May, so expect your fields to follow a similar pattern.

Figure 1. Corn at the dough (R4) stage. Some denting has started.

Figure 2. Corn at the dent (R5) stage. Almost all kernels are at dent and the milk line is more prevalent. Depending on the weather, this ear is 2 to 3 weeks from black layer.

Figure 3. Corn at the R6 (black layer) stage. The black layer will be found at the kernel tip.

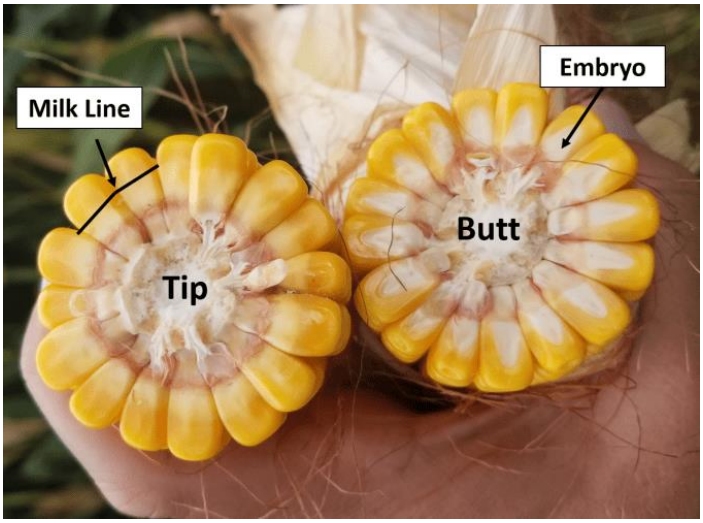


Figure 4. Splitting the cob to look for the milk line, which is visible on the tip side of the cob.

General

Guess The Pest! Weeks 19 Answer: Septoria Brown Spot of Soybean– *David Owens, Extension Entomologist,* owensd@udel.edu

Congratulations to Chris Cawley for accurately identifying the nondescript yellow and red and brown spots on the soybean leaf as belonging to Septoria Brown Spot.

Septoria Brown Spot on soybean.

According to Dr. Alyssa Koehler, "This is a disease that we see pretty consistently every year. This fungus survives in debris and is favored by warm, humid conditions. Even though incidence can be high, yield loss is not typically observed. It usually stays lower in the canopy with limited impact to yield in most years. If it moves rapidly though the canopy to the top leaves and causes premature defoliation, around 5% yield loss may be associated."

Guess The Pest! Week 20 – *David Owens, Extension Entomologist,* owensd@udel.edu

Get out your field guides and practice your pest management knowledge by clicking on the GUESS THE PEST logo or following this link: http://www.udel.edu/008255 and submitting your best guess. For the 2021 season, we will have an "end of season" raffle for a scouting toolkit for one lucky winner, and five winners will be sent a small jar of locally produced honey. Remember, you can't win if you don't play!

It's time to jump back into field crops this week. Perhaps doing some yield checks on field corn, you may have noticed corn leaves that looked like they had heavy spider mite feeding. When you flip the leaf over, you see these black specks all over which is not from spider mite. Who did this?

Go to http://www.udel.edu/008255 to Guess the Pest!

Announcements

Pesticide Safety Exam Reviews

Beginning in March the Delaware Department of Agriculture Pesticide Section will provide a Pre-Certification Pesticide Core Exam Review. This review will provide essential information, covering laws, equipment, personal safety and more to help you prepare for the core certification exam.

The core exam is for private pesticide applicators and a prerequisite for all commercial pesticide applicators.

2021 Pesticide Exam Dates
Wednesday, September 29, 2021
Wednesday, November 17, 2021

Schedule for Exam/Review Dates
Core Exam Review: 9 – 11:30am
Lunch Break
Pesticide Testing for ALL: 1 – 4pm

You may choose to test in the afternoon of the review or on another testing date.

Sign up is free!
Log into your account on dda.force.com/pesticide then click on Exam Registrations.

For more information on this training course and testing please contact Amanda Strouse at amanda.strouse@delaware.gov or 302-698-4575.

COVID-19 Vaccination Opportunities in Delaware

COVID-19 vaccination is currently available to Delawareans ages 12+ at numerous sites throughout the state. Some sites require an appointment and others offer walk-in hours. Information about vaccine sites and appointments is online at https://coronavirus.delaware.gov/vaccine/where-can-i-get-my-vaccine/.

Mental Health First Aid Training

What is this training about?
The Mental Health First Aid training is an 8 hour evidence based program that introduces participants to risk factors and warning signs of mental illnesses, builds understanding of their impact, and overviews common ways to help and find support. Using interactive educational methods, you'll learn how to offer initial help in a mental health crisis and how to connect with the appropriate level of care. You will also receive a list of community healthcare providers and national resources, support groups, and online tools for mental health and addictions treatment and support.

What is the training format?
The course will be offered in two parts. The first part is offered online in a self-study format, takes about 2 hours, and needs to be completed before the live session. The second part will be offered live and virtually via a Zoom connection. This session will be held from 9am-3pm. You will receive the link for the self-paced session and Zoom info for the live session after you have registered. You need to register by the dates listed below to be able to attend the schedule live Zoom training date.

Why attend?
In Delaware our agriculture community is facing many stressors. Those who are in the position to consult and aid them need to know the signs, symptoms and strategies to best serve them. Farm family members also need to know how best to help their loved ones. This training is being taught by instructors from the Delaware Mental Health Association.

A certificate of completion is provided to attendees who attend all 8 hours of the training.

There are four dates for the Zoom session. Seating is limited. Please choose only one:

Mental Health First Aid Zoom Sessions with Registration Links

Friday, September 24, 2021 9 a.m.–3 p.m. Register by August 24
https://www.pcsreg.com/mental-health-first-aid-training-sept-2021

Friday, October 5, 2021 9 a.m.–3 p.m. Register by September 5
https://www.pcsreg.com/mental-health-first-aid-training-oct-2021

This training is underwritten by the Sustainable Coastal Communities Project, Delaware Farm Bureau

and University of Delaware Cooperative Extension. These organizations are equal opportunity providers.

Extension302 Podcast

Episode 22: Facing Fake News

Only 26 percent of Americans are confident they can recognize fake news. Are you one of them? The crew sits down with Dr. Cara L. Cuite (Rutgers) to discuss the rise of misinformation and how it might be affecting you.

To listen, go to:
https://www.udel.edu/academics/colleges/canr/cooperative-extension/about/podcast/

Virtual Professional Development Opportunities

Presented by DSU Cooperative Extension & Northeast SARE

With guest, Dr. Nancy Franz
Professor Emeritus, Iowa State University, School of Education

Getting Your Point Across
August 23, 2021, 1:30-3:00 PM (EDT)

Tips and tools for using storytelling to engage your audience, encourage behavior change, and improve your success stories.

Improving Your Outreach Strategy
September 8, 2021, 10:00-11:30 AM (EDT)

Using situation analysis and needs assessment techniques to better serve your constituents and be more efficient.

Register for either or both here:
https://forms.gle/9MyG6FKdgDnCdvSZ8

Email jchallandes@desu.edu if you have any questions.

Cooperative Education in Agriculture, Youth Development, and Home Economics. Delaware State University, University of Delaware and the United States Department of Agriculture cooperating, Dr. Dyremple B. Marsh, Dean and Administrator. It is the policy of the Delaware Cooperative Extension System that no person shall be subjected to discrimination on the grounds of race, color, sex, disability, age, or national origin.

Migrant/Seasonal Farmworkers: Stress Issues and Solutions

Wednesday, August 25 3:00 – 4:00 p.m. ET
Online

Farmworker mental/behavioral health is closely intertwined with multiple, simultaneously contributing variables, including those related to occupational/workplace factors, culture, and interpersonal relationships.

This webinar will explore sources of stress among migrant/seasonal farmworkers and provide information and resources for assisting this population.

For more information on this webinar go to:
https://connect.extension.org/event/webinar-migrant-seasonal-farmworkers-stress-issues-and-solutions

To participate in this free webinar, click here to access the online registration form by Monday, August 23. Instructions for accessing the session will be sent to registrants by Tuesday, August 24. Contact AgrAbility at 800-825-4264 or email agrability@agrability.org if you have questions.

Tick Academy

September 13 - 15, 2021
Online

The Tick Academy is the premier event for pest control professionals, educators, students, researchers, public health professionals, public-space managers and citizen scientists interested in learning more about what they can do to stop the spread of ticks and tickborne diseases in their communities.

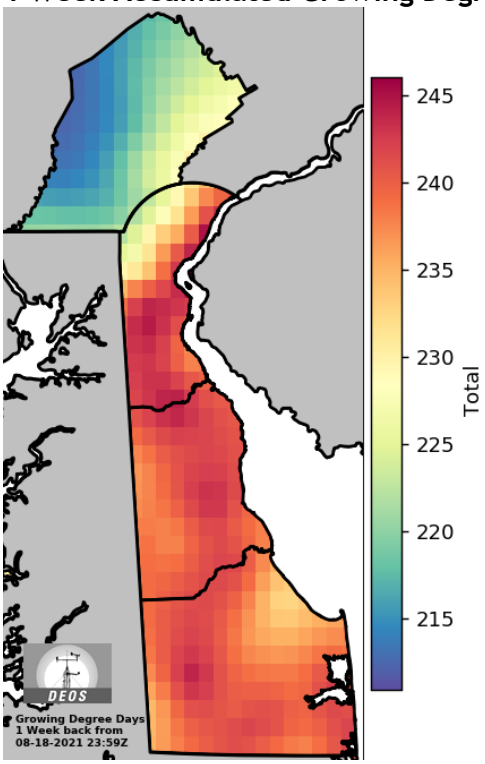
This virtual event will feature twelve presentations over three, four-hour sessions where presenters will share the newest information about tick management, tickborne disease prevention, recent discoveries of emerging pathogens, public perceptions of risk, diversity,

identification of ticks and ongoing research on control and vaccine developments.

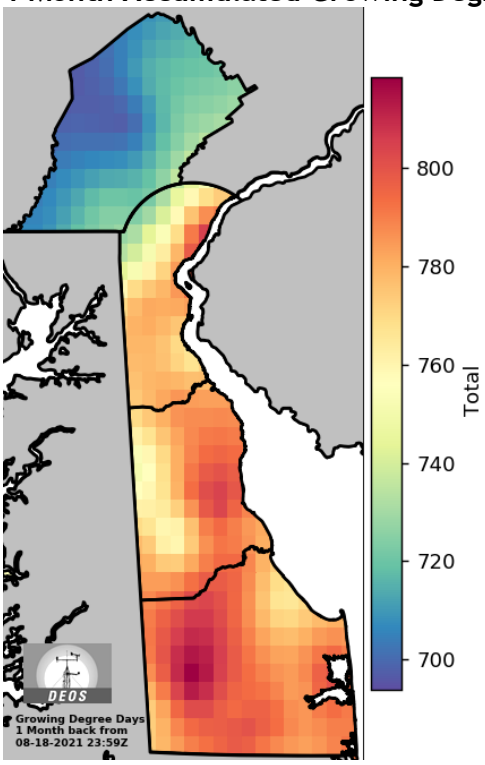
For more details, please view the **announcement flyer**
To register, visit
https://tickacademy.brownpapertickets.com/.

Weather Summary

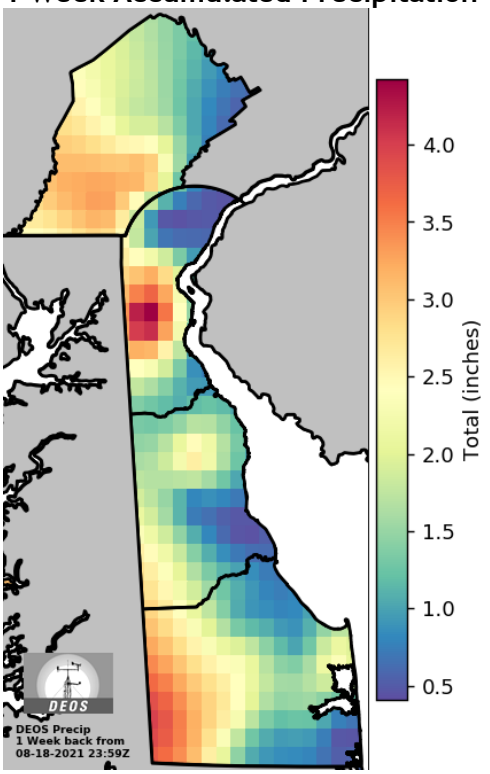
1 Week Accumulated Growing Degree Days



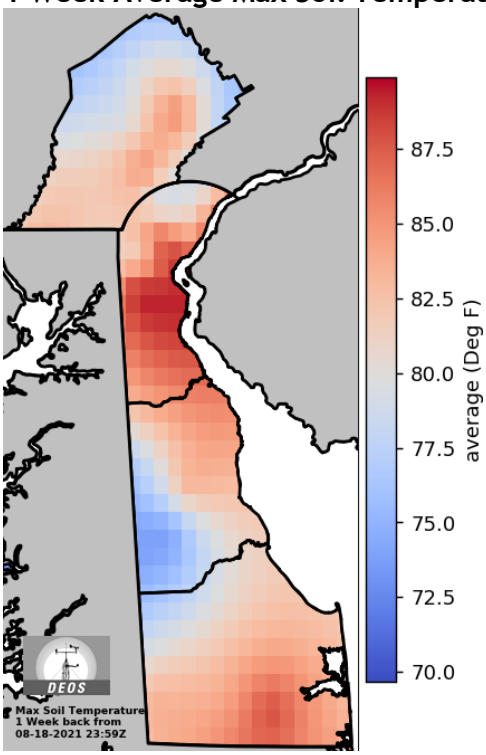
1 Month Accumulated Growing Degree Days



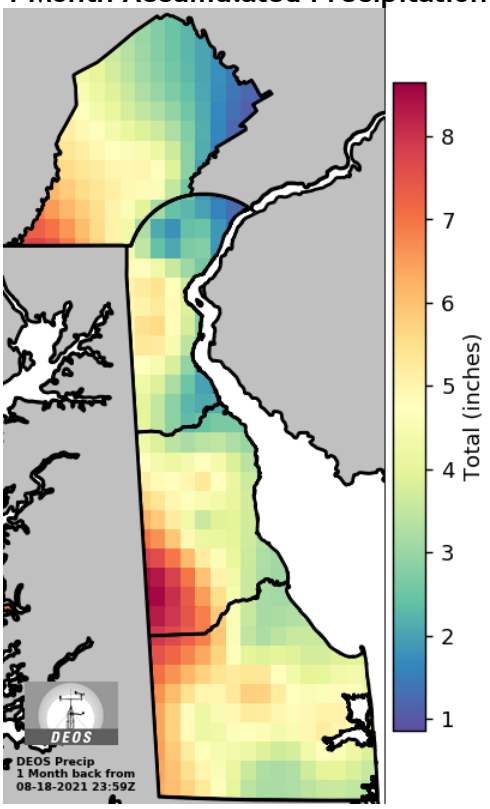
1 Week Accumulated Precipitation



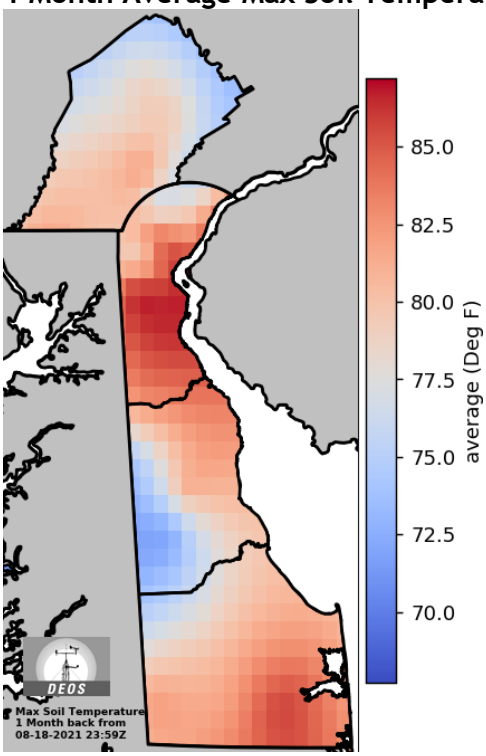
1 Week Average Max Soil Temperature



1 Month Accumulated Precipitation



1 Month Average Max Soil Temperature



These weather maps are generated from DEOS weather station data and are part of a new Ag Weather website that is under development. Your feedback is welcome!
Thanks!! Emmalea (emmalea@udel.edu)

Weekly Crop Update is compiled and edited by Emmalea Ernest, Scientist – Vegetable Crops