WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION



Vegetable Crops

Vegetable Crop Insect Scouting

David Owens, Extension Entomologist, owensd@udel.edu

Cucurbits

Continue scouting for all three major melon pests: cucumber beetles, rind-feeding Lep pests of various species, and spider mites. The general threshold for cucumber beetles is 2 per plant, but you may want to consider being a little more aggressive on treating them in cantaloupe. Cantaloupe rinds are soft enough the beetles can gouge and pit them, whereas in watermelon their feeding is more superficial. Acetamiprid is the best material for cucumber beetles. Do not rely on pyrethroids in our area. If worms are a concern, Harvanta has fairly good cucumber beetle efficacy and is excellent on worms. Recent wet weather is not enough to dislodge mites, continue scouting for them. Magnification is a major help because it will help you determine whether the mites are live or dead.

Squash bugs are the major threat right now to summer squash. PLEASE NOTE: Carbaryl is labeled for squash bug control but gives only fair control at best. Instead, consider using a pyrethroid or Assail. Assail is best on small nymphs and eggs (no, it wont kill eggs, but it has a long enough residual it should kill hatching nymphs).

If your plants have squash vine borer in them, it is too late to kill larvae. We just evaluated a

zucchini trial this week, zucchini plants were planted at the end of May and weekly treatments applied beginning mid-June upon vine borer emergence. A weekly pyrethroid application completely prevented vine borer damage. Please note that we do have a second flight period of vine borer in August.

Potatoes, Peppers, Eggplants, and Tomatoes

Continue scouting for stink bug damage to fruit. Stink bugs are best managed with bifenthrin containing products or (where labeled) dinotefuran. Of the neonicotinoids, dinotefuran exhibits very good stink bug efficacy whereas the others are fair.

Beet armyworm is active, we have a handful of beet armyworm traps out and our western Laurel traps appear to be catching quite a few more than other sites in Sussex County. I do not have any traps in northern or eastern Sussex. Scout peppers for webbing and window paning indicative of early instars recently hatched from egg masses.

Colorado potato beetle adults are active and laying. Scout eggplants and potato for both them and for spider mites; eggplant is a spider mite magnet. Agri-mek should provide good Colorado potato beetle control and excellent mite control. There are numerous materials that are excellent for potato beetles or spider mites, but abamectin is the only one good for both.

Please note that while bifenthrin does have some mite activity, it is short lived and often leads to a resurgence in mite numbers. If a

July 19, 2024

pyrethroid is used for leafhopper, it has a good fit, but should not be used alone for mites. Potato leafhoppers are becoming more numerous in the landscape. Scout potatoes, especially if near an alfalfa field.

Lima Beans

Lima beans are beginning to flower, now is the time to scout for tarnished plant bug and begin scouting for stink bugs. In dry corners of fields, also scout for spider mites. If you have mites, please let me know, we need pictures!

Tarnished plant bugs are often especially numerous in areas with heavy pigweed populations. Thresholds are 15 per 50 sweeps; labeled materials include Lannate, Orthene (but not for long!), dimethoate, pyrethroids, transform and Beleaf. Of those materials, Beleaf has the narrowest spectrum, but is excellent on them and aphids. Interestingly, it is not effective on stink bugs.

Sweet Corn

Scout whorl stage sweet corn NOW for fall armyworm. The threshold in mid to late whorl stage is 30%, but once the tassel is emerging, the threshold goes down to 15%. As much as possible use high volume sprays directed into the whorl. While chlorantraniliprole is our best material for FAW, we are limited in how much we can use; I would prefer to save all that active ingredient for corn earworm silk sprays. Avaunt, Radiant, and Intrepid Edge should all provide good control.

Corn earworm activity is unusually high for this time of year. This may be because both the hot weather and delayed corn planting. Pay attention not just to pheromone counts but also blacklight trap counts. Blacklight trap counts of 2 or more below indicate a 3 day spray schedule (https://www.udel.edu/academics/colleges/can r/cooperative-extension/sustainableproduction/pest-management/insecttrapping/silk-stage-sweet-corn/). Next week there are chances of thunderstorms. If a rain event occurs shortly after a pyrethroid application, expect to lose some efficacy and retreat sooner. I do not think the decrease in efficacy is quite as pronounced following a Besiege or Elevest treatment, but we will be testing this question later in the season. Begin earworm sprays at first silk; if fall armyworm is not present in the tassels, there is little benefit to starting before first silks are out. Keep a tight spray schedule for the first 10 days of the silking period.

Location	Blacklight	Pheromone
	Trap	Trap
Dover	1	30
Harrington	0	97
Milford	0	12
Rising Sun	0	18
Wyoming	7	45
Bridgeville	0	20
Concord	1	38 (M-W)
Georgetown	0	
Greenwood	1	23
Laurel	3	102
Whaleyville		58 (R-M)

Thursday trap counts are as follows:

2024 Pumpkin Enterprise Budgets

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

Pumpkin 2024 enterprise budgets have been updated. No-till and plasticulture production budgets are created. Both production methods have budgets given where revenue is based on pounds or per pumpkin. The budgets are the associated excel file. In addition, they can be found at the farm business management webpage on the University of Delaware Cooperative Extension website:

https://www.udel.edu/academics/colleges/canr /cooperative-extension/personal-economicdevelopment/agribusiness/farm-businessmanagement/

Southern Blight Problem in Peppers

Jerry Brust, IPM Vegetable Specialist, University of Maryland; jbrust@umd.edu

An astute grower noticed a scattering of wilted pepper plants in an otherwise very nice-looking pepper field (fig. 1). Upon closer inspection she noticed that at the base of a wilted plant the stem had a white mycelial growth (fig. 2). When pulled out of the soil and examined the white mass was much more extensive and dark streaks could be seen along the stem (fig. 3). And if you look closely at the base of the plant just above the soil line you can see brown/tan round sclerotia on the stem. This last observation is conclusive for the problem being Southern blight.

Southern blight is caused by the fungus Athelia rolfsii (syn Sclerotium rolfsii). This fungus likes very hot (\geq 86°F day and >68°F night) and usually rainy weather. Unlike other diseases that cause lower stem and crown rot, southern blight is actually more prevalent in well drained soils. Southern blight has a wide host range, affecting over 500 plant species. Vegetable and fruit hosts include tomato, pepper, onion, strawberry, carrot, lettuce, cucumber, melon and asparagus.

The fungus survives on plants (including weeds), and in plant debris as well as in the soil as sclerotia, which can persist for several years. The fungus can be spread through movement of infested soil and plant debris, on infected plants, in contaminated irrigation water, and through contaminated equipment. Fruit that touches infested soil or that has soil splashed up on it can become infected, resulting in a wet rot and rapid decay of fruit. The fungus is generally restricted to the upper 2 to 3 inches of soil and will not survive at deeper depths. Which would indicate it would be possible to use steam treatment on the soil for management.

Cultural Controls: Use well-composted mulch. Avoid overwatering. Time irrigation lengths and frequencies by taking rainfall into account. During the season, remove and destroy symptomatic plants. Deep plow or bury crop debris at the end of the growing season. Avoid movement of infested soil to clean fields. Because acid soils favor disease development and germination of sclerotia is inhibited at a pH of 7 or greater, try to keep soils from becoming acidic. Rotate host crops with corn, wheat, barley, or other non-host crops for 2-3 years. Inoculum levels can be reduced by burying infected plant debris and sclerotia by deep plowing. Be sure the previous crop is decomposed prior to planting, which may require disking the field several times. Tomato varieties grafted onto tomato rootstocks 'Maxifort', 'Big Power', and 'Beaufort' have been shown to maintain yields in southern blight infested fields.

Chemical controls include using azoxystrobin 2.08F or Terraclor 75WP applied to transplant water. Check label before using. Infected soils can be steamed to a depth of 3-4 inches.



Figure 1. Single pepper plant wilting with other nearby plants looking good.



Figure 2. Wilted pepper plant with white mycelial mass at bottom of stem with a canker.



Figure 3. Much larger mycelial mass at bottom of wilted pepper plant with brown streaking of stem

<u>Black Dot Root Rot Found in High Tunnel</u> Tomatoes

Jerry Brust, IPM Vegetable Specialist, University of Maryland; <u>jbrust@umd.edu</u>

A root disease commonly associated with potato has turned up on tomato in high tunnels. This disease goes by the delightful name of black dot root rot. The causal agent *Colletotrichum coccodes* also causes anthracnose fruit rot on tomato (sunken, water-soaked, circular lesions).

C. coccodes infection on tomato roots appears as lesions on the root surface that produce black microsclerotia (the 'black dot' in its name) (Fig. 1). Infected plants will sometimes wilt with the lower and middle leaves of the plant turning yellow.

C. coccodes has a very large host range, which includes members of Solanaceae, Cucurbitaceae and Leguminosae, both crops and weeds. Nightshade (a solanaceous weed) can harbor the fungus, often without showing symptoms. The pathogen can survive in the soil for up to eight years as microsclerotia.

This pathogen causes problems only under poor growing conditions or when other pathogens are present. The disease most commonly occurs in greenhouses or high tunnels where there has been a continuous cropping of tomato for several years, resulting in very high levels of inoculum. Other conditions in high tunnels, such as **high temperatures and water stress** can predispose plants to infection and root rot by *C*. *coccodes*. These infected plants can at times show few symptoms, but still result in yield reductions.

The disease can be prevented by growing in optimal conditions for tomatoes in the high tunnel. Deep plowing (12-15 inches, not easy to do in a high tunnel) degrades infected plant debris more rapidly and buries propagules both of which may help reduce fungal populations. Steam sterilization of the soil can greatly reduce disease incidence. Crop rotation is another tried and true management plan if growers can rotate out of any solanaceous, leguminous or cucurbit crops for 3-4 years - something most growers probably cannot financially do. Grafting is another possibility, but even grafted plants can still become infected with this disease. A particular root stock may be resistant or more tolerant of the disease, but this is something that would need to be checked before using. Small grains or corn can be used in rotation to reduce fungal populations.



Figure 1. Black dots (microsclerotia of C. coccodes, arrows) on tomato root

Fruit Crops

Fruit Crop Insect Scouting

David Owens, Extension Entomologist, owensd@udel.edu

Reports have come in recently of both Japanese beetle and June Beetle feeding on peaches. The best materials are Danitol and Carbaryl, both with a 3 day pre harvest interval. There are no great options with a shorter PHI. Pyrethrins have a 0 day, but they tend to annoy and knock down but not kill.

Stink bug counts in blacklight traps are moderate. Consider bifenthrin around orchard edges to keep them out, especially of apples.

Looking Back at Spring and Ahead to Harvest: Fireblight, Rust and Chemical Thinning

Dr. Chris Walsh, Horticulture; <u>cswalsh@umd.edu</u> and Kathy Hunt, Plant Science and Landscape Architecture; <u>khunt@umd.edu</u>, University of Maryland

March, April, and May brought a lot of rainy weather. With the last month of hot dry weather, it seems so distant. For some apple and pear growers, the spring rains made it difficult to control fireblight. We also saw a lot more rust this year. Both diseases have plagued mid-Atlantic fruit growers for more than a century.

Fireblight has caused the most problems for growers (figure 1). Despite multiple applications of prohexadione-calcium (Apogee TM) and streptomycin, many growers still needed to cut outshoot blight in late May. This went on until mid-June when above-90-degree temperatures stopped shoot blight.

This year we sent several samples from young and established orchards to Dr. Kerik Cox' plant pathology lab at Cornell. His graduate student, Isabella Yannuzzi, is very helpful to fruit growers, isolating *Erwinia amylovora* and then testing it for streptomycin resistance. We had hypothesized that the difficulties controlling fireblight in 2023 and 2024 might be due to the presence of streptomycin-resistant *Erwinia*. This was not the case. All the *Erwinia* isolates from Maryland orchards were susceptible to streptomycin.

The question remains - why have we had so much difficulty controlling fireblight during the past two years?

Many growers have planted blight-susceptible trees like Gala, Cripps Pink, Fuji, Evercrisp, and European cider varieties in tall-spindle plantings. These susceptible trees set the stage. A wet spring then created perfect conditions for blossom blight in some orchards. Blight was worse in blocks planted at lower elevations, bordered by woods, and lacking adequate air drainage.

In addition to fireblight we also saw rusts in pome fruits (figures 2 and 3). These rusts require an alternate host to complete their life cycle. With the wet weather, we saw an unusual number of infections from cedar-apple rust on apples and cedar-quince rust on pears.

While cloudy wet weather caused increased disease pressure, it did help Maryland growers with chemical thinning. Most growers reported a better response to thinners than in years past. The cloudy, rainy weather after bloom likely reduced photosynthesis and increased the effectiveness of chemical-thinning treatments.

While it's been dry for more than a month now, our fruit crops are under stress. Hopefully, fruit size will still be good at harvest due to the better-than-expected response to chemical thinning.



Figure1. Example of Fireblight in an orchard tree



Figure 2. Quince Rust on Bartlett Pear fruit



Figure 3. Quince Rust on pear leaf

Agronomic Crops

Agronomic Crop Insect Scouting

David Owens, Extension Entomologist, owensd@udel.edu

Alfalfa

Continue scouting for potato leafhopper on alfalfa less than 12 inches tall. Cutting alfalfa destroys nymphs and forces adults out of the field, but if there is a sequence of cuts, it may push adults onto older cuts that are growing but less than 12 inches.

Soybean

There are numerous defoliators present. With dry weather, canopies on barley and wheat beans are slow to close and thus the impact of defoliators is greater. Spider mites are still a concern, even with recent rains. If mites are present on half of the plants sampled, those plants are showing stippling or defoliation on a third of their leaves, and mites exceed 20 per leaflet, consider a miticide treatment (abamectin or etoxazole). Beans not under drought stress can tolerate more mites than those that are. Rain and high humidity favors pathogens that can destroy mites. Infected mites will be brown and have a slightly fuzzy appearance. While scouting, take note of fields with higher Dectes counts, particularly full season bean fields, to prioritize them for as timely a harvest as possible. Scout for stink bugs

in full season bean fields that are beginning to set pods. The stink bug threshold is 5 bugs per 15 sweeps; less for Plenish soybean, and 2.5 bugs per 15 sweeps for seed soybean.

Sorghum

Begin scouting for sorghum aphids. They tend to first appear on mid-canopy leaves or lower. There are a couple of species that may be present; sorghum aphid (formerly white sugarcane aphid) has small cornicles that are the same color as the aphid. They have a light, white-yellow appearance, whereas the seldom important yellow sugarcane aphid is considerably larger and has a dark lemon color. Corn leaf aphids may be present in sorghum that is in boot stage. Typically, I don't worry about this aphid too much in sorghum, but this year they might cause enough stress to drought stressed plants to cause concern. Corn leaf aphids concentrate around the flag leaf, are smaller, rectangular, and green; populations usually decline rapidly once the head emerges. Sorghum aphid on the other hand reproduces extremely fast in high temperatures.

Irrigation Demand Forecast

James Adkins, Extension Engineer, adkins@udel.edu

Field Corn

Scheduling irrigation following an excessive rainfall like we had last weekend is tricky. ET schedulers assume that the soil was able to quickly absorb the entire rain event immediately and do not account for inadequate drainage. If have poorly drained soils and are using a ET scheduler I recommend pushing back the starting irrigation by one day over the recommendations. Evapotranspiration (ET) for corn planted on April 15 averaged 0.29 inches per day over the past 4 days, while corn planted on May 12 averaged 0.27 inches per day. Unless you received rain Wednesday night corn will require irrigation as early as Wednesday 7-17 for sandy soils or Thursday 7/18 for heavier ground.

Looking ahead over the next 5 days, ET is expected to decrease to an average of 0.22 inches per day.

Soybean

Canopied full season beans used an average of 0.29" per day over the past 4 days while double crop beans averaged 0.15". Estimates for the week ahead show 0.22" per day for full season and 0.14" for double crop beans. Keep in mind that soybeans pull water mainly from the shallow (0-6") part of the root zone. Irrigation should be in small amounts but applied frequently.



General

The Delaware Irrigation Management System (DIMS) has been updated to be mobile-friendly. This system automatically tracks crop water usage using data from the DEOS weather station network and provides a forecast and prediction model for planning irrigation over the next 5 days. To use this free system for scheduling irrigation, visit <u>DIMS Website</u>.

In the event of irrigation well failure, an emergency well replacement process is available through DNREC. However, if you do not have a water allocation in place, your replacement will be delayed by the mandatory 2-week advertising period. For more information on water allocations, contact Patty Murray of the DNREC Division of Water at

patricia.murray@delaware.gov or 302-739-9948.

General

Guess The Pest! July 19

David Owens, Extension Entomologist, owensd@udel.edu

For the last Guess The Pest on July 5, we had photos of damaged drip lines. One was more of a rounded hole while the other seemed to be a bit more of a flat burst hole. Congratulations to Aaron Doll and Cory Showard for logging in their guesses. I truly do not know exactly who done it. The round hole could be the work of wireworm; others blame mole crickets. To my knowledge, the last published report on protecting drip lines from wireworms was done in the 1970s and used lindane. I and others are interested in trying to set up some sort of test for wireworm protection, both of transplants and drip lines this fall, I welcome your ideas.

This week, we encountered this critter feeding on eggplant (though not nearly as abundant as CPB). Who is it?



Submit your guess here:

https://docs.google.com/forms/d/1oz5yCm8xifZtDlvZ-vPbd8a0GR-V6H9ddb9fhAyzzY/edit.

or

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



Announcements

Drones in Agriculture

Thursday, August 1, 2024 8:30 a.m.–1:30 p.m. Wye Research & Education Center 124 Wye Narrows Dr., Queenstown, MD 21658 *or*

Friday, August 2, 2024 8:30 a.m. – 1:30 p.m. Upper Marlboro Research & Education Center 2005 Largo Rd., Upper Marlboro, MD 20774

This is a one-day seminar with multiple dates and locations

Learn about the use of drones in agronomic production systems and what you will need to legally operate. Farmers, ag service providers, or anyone interested in technology are encouraged to attend. Morning refreshments and lunch will be provided.

Topics include

- Introduction to drones in agronomic production systems
- Parts of the drone and equipment overview
- What you need to operate legally
- Using drones for spraying crops
- Using drones to seed cover crops
- Drone demonstrations

Cost: \$10.00 (Please send check or cash to the Harford County Extension Office, 3525 Conowingo Rd., Street, MD 21154). Checks should be payable to the University of Maryland.

Sign up here:

https://docs.google.com/forms/d/e/1FAIpQLScdhM_Fw 2WoojPJdQ46CXzeqNNnKuwTEL-INO4Z7OgOP6lpyg/viewform

Contacts: Andy Kness, akness@umd.edu, 410-638-3255 | Erika Crowl, ecrowl@umd.edu, 410-887-8090

Carvel Field Crop Tour

Wednesday, August 7, 2024, 3:30-5:00 p.m. University of Delaware Carvel Research & Education Center 16483 County Seat Highway, Georgetown, Delaware 19947

Mark your calendars to join us for the 2024 Carvel Field Crop Tour at the University of Delaware Carvel Research and Education Center in Georgetown on Wednesday, August 7th.

The tour will take place at the Thurman Adams Jr. Agricultural Research Farm on County Seat Highway west of Georgetown at 3:30 p.m. and end at 5:30 p.m., culminating with a BBQ dinner. Highlights of the wagon tours will include the latest research on agronomic, vegetable, and fruit crops.

Delaware Pesticide and Nutrient Management credits will be available.

Please RSVP by Friday, August 2nd for attendance and meal planning, contact Karen Adams

E: adams@udel.edu

P: 302-831-3328

Delaware Grain Marketing Club Meeting

Thursday, August 8, 2024 6:00-8:00 p.m. University of Delaware Paradee Center 69 Transportation Road, Dover, DE

We will be having our 2024 3rd Quarter Grain Marketing Club Meeting on August 8th at the Kent County Extension Office in Dover. The monthly USDA report will be released on the following day. Historically, the August report moves markets. Topics will include a market update prior and monthly report expectations and also an update from the Mountaire grain merchandiser team.

To register, please contact Lisa Collins.

E: lcollins@udel.edu

P: 302-831-3402

Please contact Nate Bruce <u>nsbruce@udel.edu</u> with any questions.

Fresh Market Vegetable Research Field Day

Tuesday, August 13, 2024 5:30-7:30 p.m. University of Delaware Carvel Research and Education Center 16483 County Seat Highway, Georgetown, DE

University of Delaware Extension Specialists will showcase research projects related to fresh market

vegetable production. A box dinner will be served at the start of the meeting.

Presenters:

Emmalea Ernest, Extension Vegetable & Fruit Specialist

Mark VanGessel, Extension Weed Scientist

David Owens, Extension Entomologist

Alyssa Betts, Extension Plant Pathologist

Crops to be covered include sweet corn, peppers, lettuce, snap beans, squash and watermelon.

Topics include shade cloth use, variety evaluations, insect and disease management, weed management in plasticulture systems, using and calibrating backpack sprayers, herbicide carryover and rotation considerations.

Pre-registration is required. Please call 302-831-3328 or email <u>adams@udel.edu</u> to RSVP by Friday, August 9.

Is It Time to Give Your Pasture and Forage Management Strategies a Hard Look?

Wednesday, August 28, 2024, 6:00 p.m. to 8:15 p.m. University of Delaware Paradee Center 69 Transpiration Circle, Dover, DE

Registration is limited to 20

Topic will include:

- Things You Can't Change on Your Farm and How Technology Can Help: Soils and Environmental Conditions
- Cost of Establishing Forages and Cost Considerations Including Pesticides and Fertilizers
- Forage Selection
- Soil Sampling and Forage Management After Drought

To register, contact Sydney Riggi or Drew Harris.

E: <u>Sydney@udel.edu</u>, <u>raharris@udel.edu</u>

P: 302-730-4000

2024 Beginning Farmer Program

Wednesdays & Saturdays September-December University of Delaware, Fischer Greenhouse 533 S. College Ave, Newark, Delaware 19716

The Delaware Beginning Farmer Program is for new and beginner farmers working in small-scale vegetable and/or fruit production. Through hands-on training, demonstrations, workshops, field trips and farm tours, as well as self-study, growers will spend an entire season learning and growing with Delaware Cooperative Extension, and other invited agriculture industry professionals

Although not limited to the following topics, this training will explore the fundamentals of soil fertility and health, basic crop production, integrated pest management, food safety, and business planning and development.

This training will also provide an excellent networking opportunity. Sessions are covered by one affordable registration fee of \$75. Sessions are held at the University of Delaware Cooperative Extension office and Fischer Greenhouse on the University of Delaware campus.

Sessions are held at Fischer Greenhouse on the College of Agriculture and Natural Resources' campus in Newark, unless otherwise noted.

- Wednesday, September 11, 6-8 pm Course Orientation, Soil Basics
- Saturday, September 14, 9-11 am Greenhouse Production/Tour
- Wednesday, September 25, 6-8 pm Variety Selection
- Wednesday, October 9, 6-8 pm Small Farm Business Planning
- Saturday, October 12, 9-11 am Field Trip to Against the Grain Farm at William Penn Farm
- Wednesday, October 23, 6-8 pm Weed Identification and Management

- Wednesday, November 6, 6-8 pm Integrated Pest Management: Insect and Disease Pests
- Saturday, November 9, 9-11 am Plant Diagnostic Clinic, UD Fresh to You
- Wednesday, November 20, 6-8 pm Small Animals
- Wednesday, December 4, 6-8 pm Delaware Beginning Farmer Resource Panel with DDA, NRCS, Farm Bureau and others

Register here: http://www.udel.edu/0012105

If you have any questions about the program, please reach out to either Carrie Murphy (<u>cjmurphy@udel.edu</u>) or Nick Adams (<u>naadams@udel.edu</u>)

Nitrogen Decision Making Simulation Online Activity

Are you a Corn Farmer in DE, MD, or PA interested in learning more about in-season nitrogen modeling tools? Are you willing to participate in a 30-minute, farmer-friendly computer simulation where you can earn cash (up to \$150) and a Nutrient Management Credit (1 credit for either MD or DE farmers) for using N model outputs to make management decisions on a virtual farm?

The Universities of Delaware, Maryland and Penn State are inviting you to participate today! Visit <u>https://shorturl.at/DeTMJ</u> to start your simulation or scan the <u>QR code on our flyer</u> to start!



After your online participation you will receive an electronic gift card within one week. Your responses

are anonymous, and your information will not be shared outside the project team.

Contact Aisha Emory at <u>ahoggard@udel.edu</u> or (302) 831-6243 if you have any question or if you prefer to participate at a in person session.

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 rootknot 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_02i7 KXdpzDhbgsS

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

Weather Summary

1 Week Accumulated Growing Degree Days





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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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Precipitation (inches)

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