

WEEKLY CROP UPDATE



UNIVERSITY OF DELAWARE
COOPERATIVE
EXTENSION

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Vegetable Crops

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

Sweet Corn

Continue scouting for **fall armyworm**. An infestation noticed early last week at Carvel now has large worms in it and caterpillars are present deep in the whorl. They will finish their development by early next week. Some reports came in this week of sweet corn that appeared to be infested but no worms were present. Spotted cucumber beetle will also feed on whorl stage sweet corn and cause window-paning. This insect is not an economic threat to sweet corn at this stage. **Spider mites** may be present in some fields. Although no thresholds have been established for them, if a treatment is deemed necessary to preserve crop quality, we have two true miticides labeled for use on sweet corn: Oberon and Zeal SC. Zeal is labeled for 2-6 ounces, but has a 21 day preharvest interval. Oberon's PHI is 5 days. Note that neither of these products afford worm control. Among the pyrethroids, we sometimes get short-term mite suppression from bifenthrin.

Corn earworm counts in our pheromone traps checked Thursday are lower than they had been, BUT pay attention to black light trap counts. In several locations, black light trap counts have increased. We sometimes see this pattern and thus recommend paying attention to both types of traps. Occasionally a black light trap will indicate a tighter spray schedule than a

pheromone trap. Moth counts from Thursday are as follows:

Trap Location	BLT - CEW	Pheromone CEW
	3 nights total catch	
Dover	6	36
Harrington	1	12
Milford	4	41
Rising Sun	1	31
Wyoming	1	4
Bridgeville	1	15
Concord	2	6
Georgetown	1	11
Greenwood	2	7
Laurel	6	42
Seaford	0	---
Millsboro	4	5
Lewes	---	31

Watermelon

Spider mites seem to be resurging in a couple of the fields we have been scouting. Continue scouting for hot spots - areas with leaf yellowing, and especially hot spots with irregular leaf browning in the centers. Due to their thickness, watermelon leaves sometimes do not exhibit the stippling that is more characteristic of mite feeding on young or thinner leaves.

Continue also scouting for rind-feeding pests such as **cucumber beetles** and **lepidopteran worms** (yellow striped armyworm, corn earworm, beet armyworm, among others).

Winter Squash

Begin scouting for aphids. **Melon aphids** have

started increasing in Georgetown. This pest is often held in check until broad spectrum insecticides, especially pyrethroids, are repeatedly applied to a field. Continue scouting for **squash bugs** (often the cause of those pyrethroids) and **striped cucumber beetle**. If both pests are present in damaging numbers, consider using acetamiprid containing products.

Tomatoes

Two spotted spider mites have been very active in tomatoes over the last few weeks. Thresholds developed in North Carolina are 2-4 mites per upper canopy terminal leaflet. With our warm weather, 2 mites is probably a safer level. Consider whether or not your material of choice is translaminar or contact. Contact materials are going to need higher water volume and pressures to force product into canopy and into contact with mites underneath of leaves. Rotate among products to avoid selecting for miticide resistance and resulting decreased efficacy in a follow up application.

Cover Crops Provide Important Services for Vegetable Growers - Gordon Johnson, *Extension Vegetable & Fruit Specialist*; gcjohn@udel.edu

Vegetable growers should take time to revisit their rotations and plans for the next growing season. Decisions on fall rotational crops or cover crops will need to be made soon. The following is a reprint of a 2019 article on decision making with cover crops.

Services that cover crops provide:

- *Returning organic matter to the soil to maintain soil health.* Vegetable rotations are tillage intensive and organic matter is oxidized at a high rate. Cover crops help to maintain organic matter levels in the soil, a critical component of soil health and productivity. Brassicas and winter legumes provide the most biomass followed by ryegrasses and then rye.
- *Providing winter cover.* By having a crop (including roots) growing on a field in the winter you recycle plant nutrients (especially nitrogen), reduce leaching losses of nitrogen, reduce erosion by wind and water, and reduce surface

compaction and the effects of heavy rainfall on bare soils. Cover crops also compete with winter annual weeds and can help reduce weed pressure in the spring.

- *Providing fall and early winter cover and then winter killing.* The use of winter killed cover crops are very useful when early spring (March or April) plantings of vegetable crops such as potatoes, peas, cole crops, early sweet corn, or early snap bean crops are being planned. By winter killing, cover crop residue is more manageable and spring tillage and planting can proceed more quickly.

- *Reducing certain diseases and other pests.* Cover crops help to maintain soil organic matter. Residue from cover crops can help increase the diversity of soil organisms and reduce soil borne disease pressure. Some cover crops may also help to suppress certain soil borne pests, such as nematodes, by releasing compounds that affect these pests upon decomposition. One system would be planting mustards in August or early September, tilling them into the soil to provide some biofumigation in October, and then planting a small grain crop for winter cover. Spring planted mustards can also work ahead of later spring planted vegetables.

- *Providing nitrogen for the following crop.* Leguminous cover crops, such as hairy vetch or crimson clover, can provide significant amounts of nitrogen, especially for late spring planted vegetables. Hairy vetch is particularly well suited for no-till systems and can provide full nitrogen requirements for crops such as pumpkins and partial requirements for crops such as sweet corn, tomatoes, or peppers.

- *Improving soil physical properties.* Cover crops help to maintain or improve soil physical properties and reduce compaction. Roots of cover crops and incorporated cover crop residue will help improve drainage, water holding capacity, aeration, and tilth. The use of large tap rooted cover crops such as forage radish or oilseed radish are particularly well adapted to these uses.

- *Setting up windbreaks in the fall for spring planted vegetables.* Small grain crops will overwinter and grow tall enough in to provide wind protection for spring planted vegetables.

Rye has been the preferred windbreak because tall types are still available, and it elongates early in the spring. While barley is also early, tall varieties are not generally available. Wheat and triticale are intermediate and later.

- *Developing no-till, bio-strip-till, and bio-bed preparation systems.* There is much opportunity to increase the use of no-till and bio-tillage systems. The key will be selecting the right cover crop for the desired system. Rye, crimson clover, subclover, tillage radish, spring oats, and other cover crops have been used successfully for no-till vegetables. One innovative system that uses a combination of winter killed covers and standard covers is bio-strip-till. In this system, a high biomass cover crop such as rye or vetch is planted with strips of forage or oilseed radish in rows where spring planting will occur. Another system uses rye strips with forage radish planted where the beds will be next year.

Cover crop planting windows vary with crop and timely planting is essential to achieve the desired results. There are many cover crop options for late summer or fall planting including:

Small Grains

Rye is often used as a winter cover as it is very cold hardy and deep rooted. It has the added advantage of being tall and strips can be left the following spring to provide windbreaks in crops such as watermelons. Rye makes very good surface mulch for roll-kill or plant through no-till systems for crops such as pumpkins. It also can be planted later (up to early November) and still provide adequate winter cover. Wheat, barley, and triticale are also planted as winter cover crops by vegetable producers.

Spring oats may also be used as a cover crop and can produce significant growth if planted in late August or early September. It has the advantage of winter killing in most years, thus making it easier to manage for early spring crops such as peas or cabbage. All the small grain cover crops will make more cover with some nitrogen application or the use of manure.

To get full advantage of small grain cover crops, use full seeding rates and plant early enough to get some fall tillering. Drilling is preferred to broadcast or aerial seeding.

Ryegrasses

Both perennial and annual ryegrasses also make good winter cover crops. They are quick growing in the fall and can be planted from late August through October. If allowed to grow in the spring, ryegrasses can add significant organic matter to the soil when turned under, but avoid letting them go to seed.

Winter Annual Legumes

Hairy vetch, crimson clover, field peas, subterranean clover, and other clovers are excellent cover crops and can provide significant nitrogen for vegetable crops that follow. Hairy vetch works very well in no-till vegetable systems where it is allowed to go up to flowering and then is killed by herbicides or with a roller-crimper. It is a common system for planting pumpkins in the region but also works well for late plantings of other vine crops, tomatoes and peppers. Hairy vetch, crimson clover and subterranean clover can provide from 80 to well over 100 pounds of nitrogen equivalent. Remember to inoculate the seeds of these crops with the proper Rhizobial inoculants for that particular legume. All of these legume species should be planted as early as possible - from the last week in August through the end of September to get adequate fall growth. These crops need to be established at least 4 weeks before a killing frost.

Brassica Species

There has been an increase in interest in the use of certain Brassica species as cover crops for vegetable rotations.

Rapeseed has been used as a winter cover and has shown some promise in reducing the levels of certain nematode in the soil. To take advantage of the biofumigation properties of rapeseed you plant the crop in late summer, allow the plant to develop until early next spring and then till it under before it goes to seed. It is the leaves that break down to release the fumigant-like chemical. Mow rapeseed using a flail mower and plow down the residue immediately. Never mow down more area than can be plowed under within two hours. Note: Mowing injures the plants and initiates a process releasing nematicidal chemicals into the soil. Failure to incorporate mowed plant material into

the soil quickly, allows much of these available toxicants to escape by volatilization.

Turnips and mustards can be used for fall cover but not all varieties and species will winter over into the spring. Several mustard species have biofumigation potential and a succession rotation of an August planting of biofumigant mustards that are tilled under in October followed by small grain can significantly reduce diseases for spring planted vegetables that follow.

More recent research in the region has been with forage radish. It produces a giant tap root that acts like a bio-drill, opening up channels in the soil and reducing compaction. When planted in late summer, it will produce a large amount of growth and will smother any winter annual weeds. It will then winter kill leaving a very mellow, weed-free seedbed. It is an ideal cover crop for systems with early spring planted vegetables such as peas. Oilseed radish is similar to forage radish but has a less significant root. It also winter kills. Brassicas must be planted early to mid-August through mid-September for best effect.

Mixtures to Provide the Best Range of Services

It is important to choose cover crops that provide the maximum service benefits. Research in the regions has shown that generally mixtures of 3 cover crops providing different services maximizes benefits and creates conditions that favor soil microbial diversity.

Mixtures of rye with winter legume cover crops (such as hairy vetch) have been successful and offer the advantage, in no-till systems, of having a more rapidly decomposing material with the longer residual rye as a mulch. Other winter legume-small grain, winter legume-Brassics, small grain-Brassica, and small grain-winter legume-Brassica combinations have been successful.

Thrips Damage to Some Vegetable Fields

Severe This Growing Season - Jerry Brust, *IPM Vegetable Specialist, University of Maryland*; jbrust@umd.edu

Over the past few weeks I have gotten reports of and have seen vegetable (mostly tomato, but also pepper crucifers, cucurbits and small fruit) fields throughout the Mid-Atlantic having problems with thrips (Fig. 1). There are several species of thrips that are causing the problem in vegetables with the most common being the Eastern flower thrips, *Frankliniella tritici*, Tobacco thrips *Frankliniella fusca*, Western flower thrips, *F. occidentalis* and Onion thrips *Thrips tabaci*. The last three species are the ones most likely to transmit tomato spotted wilt virus (TSWV). In the fields I have been in that are having problems the thrips species have mostly been onion thrips and Western flower thrips.

Thrips are tiny, thin yellowish-orange insects the size of metal filings with fringed wings. They feed by puncturing the outer layer of plant tissue and sucking out the cell contents, which results in stippling-mild feeding damage or brown spots about 1/8 inch in size, which indicates heavy feeding damage (Fig. 2). In some fields I was in the damage was so severe leaves had only about 25% green tissue left as the small feeding areas turned into large regions of dead tissue (Fig. 2). These heavily fed upon areas are almost always accompanied by tiny black flecks of frass on the damaged areas of the underside of the leaf (Fig. 3). Thrips hatch from an egg and develop into two larval stages and then the 'prepupa and pupa' stages, before becoming an adult. Females lay their kidney-shaped eggs into plant tissue. Thrips have several generations (up to eight) a year. When the weather is hot, the life cycle may be as short as 2 weeks.

Besides the physical damage to leaf and plant tissue several of the thrips can transmit TSWV (Western flower thrips are good at it while Onion thrips and Tobacco thrips are not quite as good at it and Eastern flower thrips cannot transmit the virus). Tomato spotted wilt virus is an obligate parasite, e.g., it must have a living host and must be moved from one plant to another by thrips or through cuttings or possibly seed. This disease can affect tomato and other Solanaceae

crops as well as lettuce, beans, cucumber and 170 other plant species. It may take 2-4 weeks after thrips feed on a plant to see symptoms appear. Because of this TSWV appears to spread and worsen in plantings over time.

We were finding fields back in June that had TSWV problems which indicates to me the thrips problem was coming from the transplant house. Over the last 10 years my research has shown that at times 25-60% of transplants can have thrips eggs or larvae on them. It used to be that most of these hitchhikers on transplants would die in the field being unable to make the transition from the transplant production house out into the field environment. But that has changed and we are seeing more and more early infestations in vegetable fields. It also was found that treating your transplants with two applications of a 0.5-1% horticulture oil spray 1-2 weeks before transplanting to the field could reduce early season infestations by 70-80%.

At this time growers only want to know one thing and that is what can I spray to get rid of the thrips. I am afraid that there are no easy answers. Our best controls for thrips are the spinosyns, spinosad or spinetoram, but by this time most growers have used these products for several applications and need to change the mode of action. Some growers have found success using Torac in rotation with a neonicotinoid. One grower actually used the spinosyns because they had not used them this growing season and they worked very well. Other growers used Venom in rotation with Endigo and were able to reduce a severe outbreak of thrips. The problem is thrips or even two spotted spider mite outbreaks usually will not be managed with silver bullet chemicals and we need to rely on preventive management tactics for control. Using horticultural oils early in the season (May and early June) to reduce thrips populations would also help as it would reduce the possibility of resistance starting when using spinosyns or other insecticides for thrips control and the weather conditions at this time reduce the possibility of phytotoxic problems with using oils. The trick with oils is to achieve thorough coverage of the foliage, both the topside and underside of leaves must be covered with oil to be effective. Organic growers can use Entrust which is spinosad which will give good control of

thrips unless it has been used often. If so, then a rotation of insecticidal soap with hort oils could be used.

Biological control agents work best in greenhouse situations and have had mixed results in high tunnel conditions, they are not recommended at this time for field applications as this would be too expensive and the results too inconsistent. One of the best predators of thrips is *Orius insidiosus* the insidious flower bug. I was amazed to see not only the adult (Fig. 3 circle) in one heavily infested thrips field that had been sprayed weekly but also immatures. If we can find ways to increase these natural enemies in a field earlier in the season we may be able to avoid heavy infestations of thrips. *Beauveria bassiana*, an entomopathogenic fungus that attacks thrips can reduce thrips problems before they get started by applying weekly applications very early on in the season, but once it gets hot in June and July it does not work as well. *Orius* would not be too adversely affected if *Beauveria bassiana* or hort oils were used.



Figure 1. Severe thrips feeding damage to a tomato field--leaves should be green (yellow circles) not speckled brown



Figure 2. Patches of thrips feeding coalescing into large areas of brown dead leaf tissue



Figure 3. Tiny black flecks of thrips feces on heavily fed upon leaf. Notice *Orius* in circle

Rain Check Common in Tomato Fields This Season - Jerry Brust, IPM Vegetable Specialist, University of Maryland; jbrust@umd.edu

Over the last few weeks in almost all of the tomato fields I've been in have rain check on the tomato fruit (Fig. 1). Rain check is the many, tiny concentric cracks that form on the shoulder of the fruit and these small cracks can expand over time into unsightly scabs. The cracks feel rough to the touch and affected fruit do not develop proper color as it ripens. Damage will be most visible on exposed, mature green fruit after rains; but at times even small, immature

green fruit can be affected. Rain check is mostly observed on large, fresh-market tomatoes, rather than on smaller cultivars. The exact cause is not known but appears to be related to exposure of the fruit to rain. An example of this can be seen on tomato fruit that is not covered by foliage and is exposed to rain often will have rain check but the underside of the same fruit will not (Fig. 2). The problem is more severe when heavy rains occur after a long dry period with high humidity. The rain might alter the fruit temperature or water uptake, which may impede the development of the shoulder epidermis.

Cultivars can vary in their susceptibility to rain check. Those tomato cultivars that have good leaf coverage that protect the fruit and good epidermal characteristics seem to be more tolerant of rain check. Glossy fruit tends to have less of a problem with rain check than dull fruit. I have mentioned this before about using a 30% shade cloth to reduce quality problems with tomato fruit, and in my studies not a single fruit under any of the shade canopies developed rain check while the other uncovered tomatoes (same cultivars) had 15-20% rain check.



Figure 1. Exposed tomato fruit with rain check, other fruit with foliage cover has none

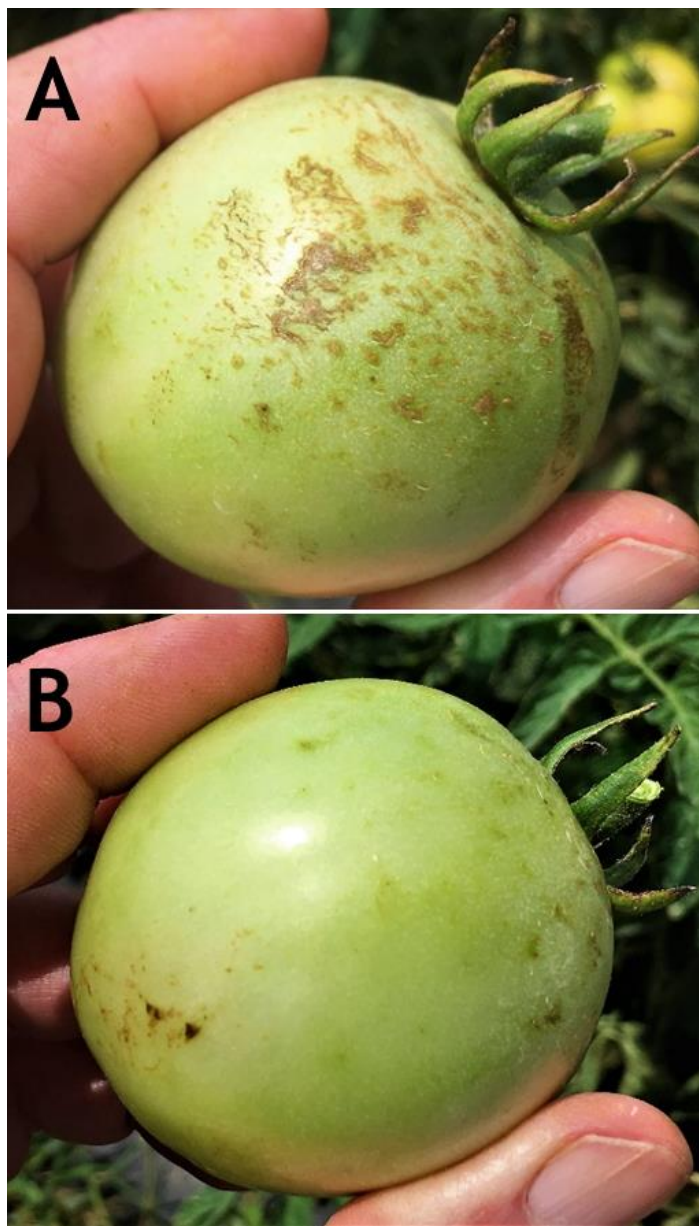


Figure 2. Exposed to rain side of fruit (A) and the underside of same fruit (B)

Fruit Crops

Tissue Testing in Fruits - Gordon Johnson, *Extension Vegetable & Fruit Specialist*; gcjohn@udel.edu

Early August is the time to collect leaf samples for nutrient analysis in tree fruits, grapes, and blueberries. As shoots grow and leaves age, nutrient concentrations change. Mid-summer is the standard time to sample because levels of most nutrients are relatively stable, so results

can be best interpreted by comparing them to known values.

Leaf analyses is be used to diagnose nutritional problems and to identify developing problems before growth or yield is affected. Sample young plantings every one to two years and established plantings every two to three years. The whole farm can be sampled in the same years, or portions sampled on a rotating basis.

Collect a minimum of 50 leaves from different plants throughout the field block. Select healthy leaves from the middle of this year's shoots. If the leaves are dusty, rinse briefly in tap water and lay leaves out on a tabletop until they are dry to the touch. For vineyards, only the petioles (leaf stems) are collected. Send to a respected agricultural testing laboratory for mineral nutrient analysis.

Agronomic Crops

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

Sorghum

Begin scouting this week for sugarcane aphid and corn earworm. So far we have not yet detected white sugarcane aphids from the 5 fields we have been looking at. There are two other aphid species that get into sorghum - the yellow sugarcane aphid and the corn leaf aphid. I almost think of both as beneficial to give natural enemies something to feed on. Yellow sugarcane aphids are bright yellow and larger than the white sugarcane aphid. Corn leaf aphids sometimes build up in large numbers on the flag leaf at head emergence, but populations typically crash soon after. For corn earworm, sample fields by shaking 50 heads into a small bucket to dislodge the worms.

Soybean

Bean leaf beetle counts seem to have slightly decreased from last week, as have Dectes. Two spotted spider mites continue to be active in and around fields, although in some locations fungal pathogens are starting to work on the mites. Fungal infected mites look like small brown puffballs. Green cloverworm are increasing in some fields, and low numbers of soybean looper

have been reported. Begin scouting for corn earworm - our usual August flight should be starting soon.

Field Crops Disease Updates - Alyssa Koehler,
Extension Field Crops Pathologist;
akoehler@udel.edu

Field Corn

Grey leaf spot (GLS) has remained the primary disease showing up in corn. If GLS lesions are becoming widespread in corn that is already past R3, yield potential should not be significantly influenced. If you have late planted corn that is at VT/R1 and over 50% of plants have lesions on the second leaf below the ear leaf or higher, a fungicide may be considered, depending on the expected yield potential of the field.

Soybean

Despite being dry across much of the area, I have seen some downy mildew in irrigated soybeans following the cloudy weather of the past few days. Downy mildew is favored by cool, wet weather and appears as pale-green to light yellow spots that can turn brown to dark brown as they mature (Figure 1). If you flip the leaf over, the underside is covered with tufts of pale to grey fungal growth (Figure 2). Under the microscope, these tufts are visible as branched sporangiophores with spores called sporangia (Figure 3). This disease does not typically influence yield. Continue to monitor the weather and scout for foliar diseases like frogeye leaf spot through R6 if you are considering a fungicide application. If disease pressure is low or plants are beyond R5, a fungicide application may not be economical.



A Koehler, University of Delaware

Figure 1. Pale yellow lesions of downy mildew on soybean



A Koehler, University of Delaware

Figure 2. Underside of a soybean leaf with downy mildew



A Koehler, University of Delaware
 Figure 3. Sporangiophores and sporangia of *Peronospora manshurica*, causal agent of soybean downy mildew

Guess The Pest! Week 19- 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!

This week, we are jumping back into soybean. A variety of ailments and diseases can be seen during the reproductive stages, especially with plants being moisture stressed. What is going on on this leaf?

General

Guess The Pest! Weeks 18 Answer:
Armyworm - David Owens, Extension Entomologist, owensd@udel.edu

Last week’s Guess the Pest was a photo of early instar armyworm feeding on husk leaves.



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



The Ag Census Counts - Jodi Letterman,
Public Affairs Specialist, USDA-NASS

No other agricultural data series is quite like the [Census of Agriculture](#). Every five years, American producers share information about themselves and their operations, contributing to a historical legacy that engages us whether we are looking backward or forward. The Census of Agriculture is a complete count of U.S. farms and ranches and the people who operate them. The data are used by producers as well as those who serve them and rural communities, including federal, state and local governments, agribusinesses, trade associations, and many others.

The purpose of any census is to enumerate, or count, all objects with a defined characteristic. For the Census of Agriculture, that goal is to account for any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year. Even the smallest plots - urban or rural - count, if this definition is met.

To prepare for the ag census, USDA's National Agricultural Statistics Service conducts the National Agricultural Classification Survey - going on now - to help identify all agricultural activity across the country. NASS encourages all producers who do not currently receive USDA NASS surveys and censuses to [sign up to be counted](#) today.

Everyone who receives a survey gives voice to their agricultural community, letting industry, new markets, and government know who they are and what they do. It is vital that everyone responds so that all of agriculture is represented and no one is left out. There is a lot at stake. Quality data impacts decisions about commitment of resources, growing communities and the best ways to leverage billions of dollars. Ag census data are used to grow markets, fund research, determine disaster assistance and much more. For the 2022 Census of Agriculture, data collection begins in November 2022.

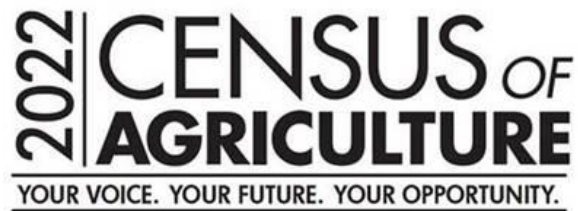
When data collection is complete, the rest of 2023 will be dedicated to data review and analysis, which includes a comprehensive disclosure review to ensure the protection of every respondent's identity. The information provided by producers in any NASS survey or

census is used for statistical purposes only. In accordance with federal law, survey responses are kept confidential and will not be disclosed in identifiable form.

When the data are finalized, an expert cadre of statisticians combines the data to provide information on the characteristics of farm operations and producers at the national, state and county levels. With data coming directly from the American agricultural producer, no other data series informs us and our descendants more completely and reliably about living and growing in this place in time. Look for the results of the 2022 Census of Agriculture early in 2024.

The 2022 Census of Agriculture tagline, Your Voice, Your Future, Your Opportunity, though oft skimmed, beats a heart of meaning for our communities, our children's children and our possibilities.

For more information about the 2022 Census of Agriculture or how to help promote it, visit www.nass.usda.gov/AgCensus or contact Jodi.Letterman@usda.gov.



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, August 11, 2021

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.

Nematode Field Day

Thursday, August 19, 2021 3:00-6:00 p.m.

Carvel Research & Education Center

16483 County Seat Hwy

Georgetown, DE 19947

The UD Nematode Field Day will be held at the Carvel Research and Education Center August 19 from 3-6.

Covered topics will include management strategies, soybean cyst nematode seed treatments and resistance genes, updates on lima bean resistance breeding for root knot nematodes, and updates on corn nematode

surveys from 2021. Demonstrations will be set up for digging SCN root samples, collecting and sending soil samples, and viewing examples of root knot nematodes in vegetable crops.

Registration information can be found at <https://www.pcsreg.com/ud-nematode-field-day>. A boxed dinner will be included for those registered by August 6.

Please email Alyssa akoehler@udel.edu with any questions.

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.

Field Tour of Carvel Crops Research

Wednesday, August 11, 2021 3:30-5:30 p.m.

University of Delaware

Carvel Research & Education Center

16483 County Seat Hwy

Georgetown, DE 19947

Please mark your calendars and save the date to join us for the 2021 Crops Research Tour at the University of Delaware Carvel Research and Education Center. This event will include wagon tours of agronomic and vegetable research plots.

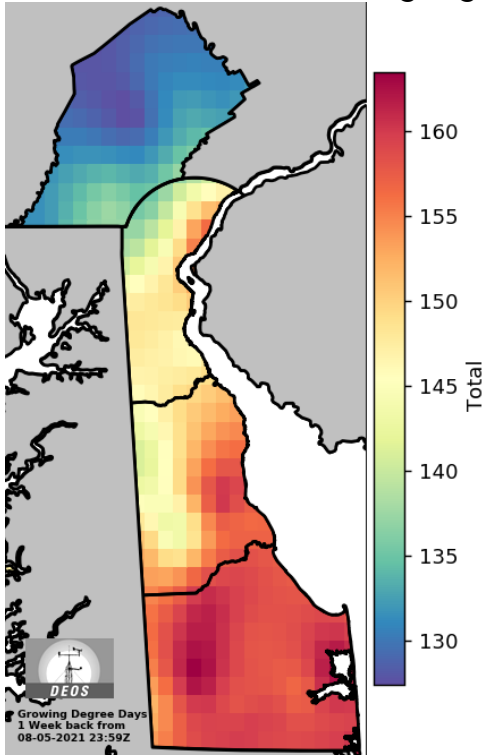
CCA and Nutrient Management credits will be available.

A box lunch will be provided.

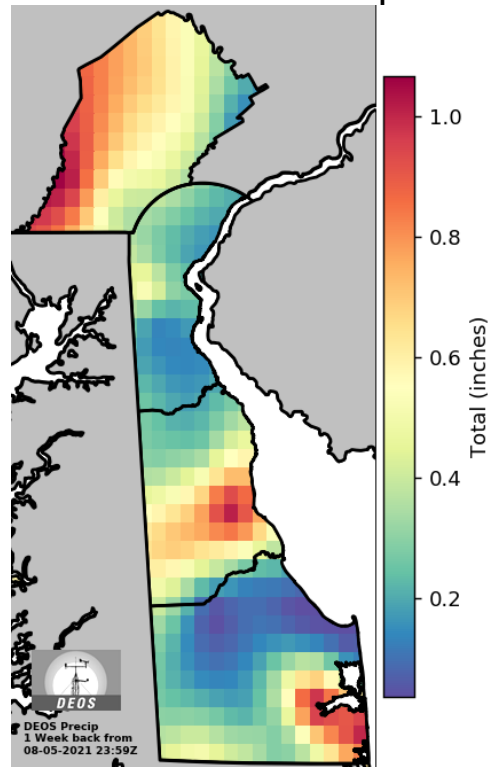
Please RSVP by calling 302-856-7303 or emailing kimlewis@udel.edu by Monday, August 9.

Weather Summary

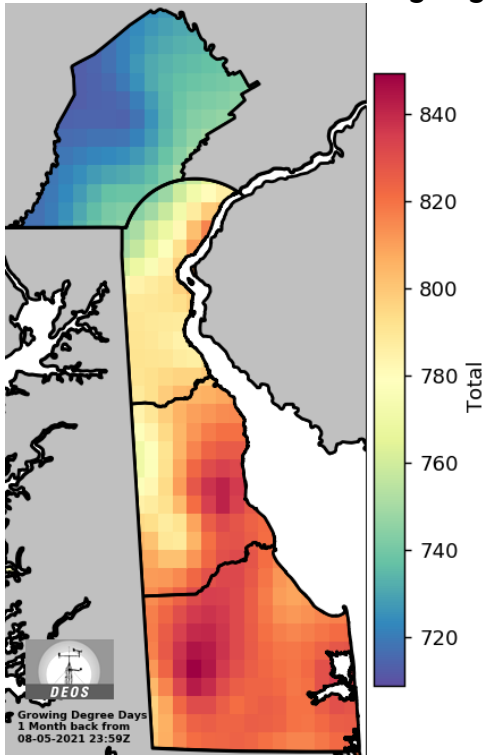
1 Week Accumulated Growing Degree Days



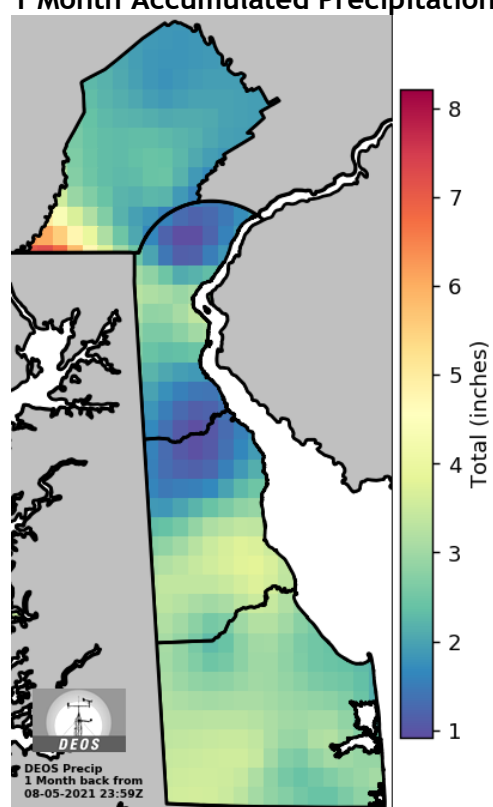
1 Week Accumulated Precipitation



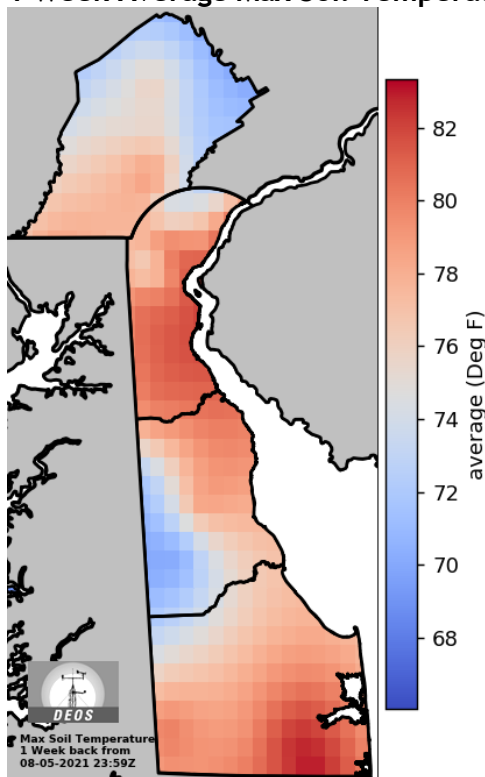
1 Month Accumulated Growing Degree Days



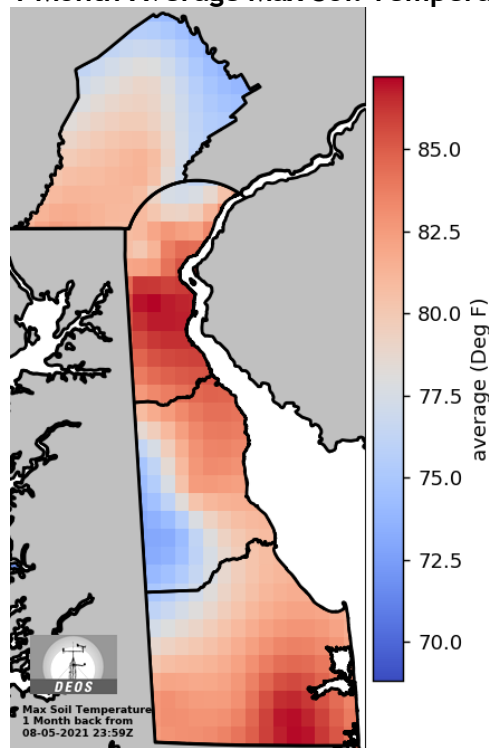
1 Month Accumulated Precipitation



1 Week Average Max Soil Temperature



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

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