

Volume 31, Issue 16

July 14, 2023

### **Vegetable Crops**

# <u>Vegetable Crop Scouting Report</u> David Owens, Extension Entomologist,

owensd@udel.edu

#### **Sweet Corn**

Scout whorl stage sweet corn NOW for fall armyworm infestation. Multiple reports of fall armyworm came in this week from small worms just hatching and only causing window-paning to larger worms working in the whorls. Sweet corn thresholds are 15% early and late whorl infestation and 30% mid-whorl stage. We have several options available for fall armyworm control. The key is to treat early infestations. By the time large holes are noticeable in leaves, the worms are either very deep in the whorl and will be hard to reach with an insecticide or they may have left. I prefer not to burn one of our 2-4 shots of Elevest or Besiege on fall armyworm because whorl stage sweet corn will be silking when moth pressure comes up in early August. We will want all the chlorantraniliprole that we can use for silk protection. If caught early enough, pyrethroids may do enough on them; other options include Rimon, Intrepid, Intrepid Edge, Avaunt, and the spinosyn class.

A report came in this week of spider mite stippling on husk flag leaves. Agri-Mek has a 7-day PHI, Oberon has a 5 day PHI, and Zeal has a 21 day PHI. A high rate of a pyrethroid or a pyrethroid + Lannate might knock them back just enough to reduce them for harvest, but in my experience, pyrethroids only annoy spider mites

and they quickly come back with a vengeance. Oberon sometimes is not fast enough to suppress them in time for a harvest if the sweet corn is going to be harvested inside of Agri-Mek's 7-day PHI.

Corn earworm moth counts are generally very low across the state but with a couple of exceptions. Some trap sites even indicate a 5-day spray schedule, but this just makes me nervous.

Thursday trap counts are as follows:

Trap Location	BLT CEW	Pheromone CEW	
	3 nights total catch		
Dover	1	83	
Harrington	1	5	
Milford/Canterbury	0	3	
Rising Sun	1	19	
Wyoming	0	18	
Bridgeville/Redden	0	5	
Concord	0	5	
Georgetown	1	19	
Woodenhawk	0	4	
Laurel	1	55	
Lewes	-	-	

### **Cucurbits**

Striped cucumber beetles have just started emerging from the soil. One easy way to monitor for their presence in watermelon is to look at flower feeding. That will at least tell you they are there. This generation will best be treated with acetamiprid or cyclaniliprole. Carbaryl can be very effective, but it is devastating to pollinators and can flare up mites. Pyrethroids

can flare mites as well and have not been effective in recent bioassays or spray trials.

Mites are becoming an increasing concern with the hot weather we have been experiencing. It does not take long for their populations to increase 5-10x. You may see hotspots with heavily stippled leaves that are yellowing and senescing. Mites will primarily impact the plant's ability to set and mature late sets, but as far as I can tell, they do not have a great impact on the first or second set. Of the short PHI materials, Acramite/ Banter and Portal have been consistent. Kanemite has some translaminar activity, and Magister has powdery mildew activity. On translaminar materials such as Kanemite, Zeal, and AgriMek, remember not to mix them with sticker adjuvants or fungicides that have a lot of stickers such as Bravo.

Squash bugs are very active right now. Thresholds are 1 egg mass per plant. You may need to spray twice to clean them up, about 10 days apart. Eggs are almost impossible to kill with insecticides. The pyrethroids, Assail, and Sivanto Prime all do a good job on squash bug.

### **Tomatoes and Eggplant**

This time of year the main tomato threats are from spider mites and stink bugs. Spider mite thresholds are 4 mites per upper canopy leaflet for tomato and 4-8 mites per leaf for eggplant. Eggplant is a spider mite magnet, but mites tend not to show feeding signs until heavy populations have built up. Scout eggplant for defoliation as well, Japanese beetle and potato beetles can cause heavy defoliation. Stink bugs are hard to scout for. Rutgers IPM program (Kris Holmstrom) wrote recently: This is the time of the season when native brown stink bugs become active in tomato fields. These true bugs, move into irrigated tomato fields as forage in the surrounding environment dries out. Feeding results in "cloudy spot". Increases in stink bug injury are often found by crews picking the fruit. Growers should consider 1-2 insecticide applications to limit fruit injury if this damage is increasing in harvested fruit. If actively scouting fields, insecticides should be considered if stink

bug adults, nymphs or new fruit injury is found in 2 or more sample sites in a 10-site sample. "

### **Snap Beans**

Scout for spider mites and potato leafhopper. Worm damage potential is very low right now.

#### **Potatoes**

Colorado potato beetle adults have emerged and are laying eggs again. Scout for larvae and for defoliation, especially on later maturing plantings or varieties.

# <u>Irregular Ripening in Watermelon</u> Gordon Johnson, Retired Extension Specialist; gcjohn@udel.edu

Irregular ripening is a common problem that occurs in some watermelon fields each year. This is where varieties planted at the same time do not ripen evenly in a field. Fruits that look mature on the outside are not fully ripe inside, often with significant amounts of white flesh.

Watermelons are classified as non-climacteric, that is, they do not continue to ripen significantly after harvest. Other fruits, particularly those that soften, such as peaches, release ethylene gas during the ripening process and will continue to ripen after harvest. It was once thought that ethylene was not involved in watermelon ripening, however, in 2009, USDA researchers found that watermelons released a burst of ethylene at the white fruit stage. Watermelon fruit development and ripening also is dependent on the accumulation of sugars. Sugars are produced by photosynthesis in the foliage of the watermelon plant and are translocated to the fruit.

So, what is the cause of irregular ripening? One possible explanation is deteriorating vine health. Loss of foliage or stem tissue due to diseases such as gummy stem blight or insect or mite feeding on leaves and stems can reduce the number of sugars available to translocate into the fruit. In a field, variability in vine health therefore would lead to variability in fruit

ripening. Certain viruses can also affect watermelon ripening.

The burst of ethylene that researchers found could also be an issue. In plants where ethylene production is compromised, this could lead to later ripening or incomplete ripening.

Potassium may also be an issue. Potassium is important in fruit ripening and low or variable potassium levels may lead to irregular ripening. In fields with pre-plant potassium applications only, heavy irrigation could leach potassium out of the root zone creating lower than normal levels in the soil and potential deficiencies leading to irregular ripening.

Hot weather (temperatures in the 90s) can also lead to fruit disorders. In general, watermelons tolerate high temperatures; however, some varieties are less tolerant of extended hot weather, leading to irregular ripening. Long season varieties often take longer to ripen, even when outwardly they appear to be mature.



Watermelon that did not fully ripen. Note excess white rind.

## Importance of Leaf Cover in Fruiting Vegetables

Gordon Johnson, Retired Extension Specialist; <a href="mailto:gcjohn@udel.edu">gcjohn@udel.edu</a>

July is the month that we see the highest temperatures and often have cloud free, high light intensity days and long day lengths. Under these conditions, good leaf cover is essential for producing high quality fruits. Lack of leaf cover will expose fruits to high levels of radiation and cause excessive heating of the fruit surface. This can lead to a variety of disorders including sunburn, sunscald, fruit yellowing, fruit cracking, and shriveled fruit.

Lack of leaf cover often occurs due to storm damage where high winds or hail damage leaves. After damaging storms, attempts should be made to promote new leaf cover as quickly as possible by sidedressing or fertigating with nitrogen fertilizer and by irrigating.

A second temporary loss of leaf cover occurs during hot periods when plants are allowed to wilt. Just a few hours without cover under high heat and light can cause severe damage to fruits. This is most severe in dark colored fruit such as peppers and cucumbers. Irrigation management is critical to limit fruit damage due to wilting.

Lack of leaf cover can also be due to lack of plant vigor and poor plant growth which may have a variety of causes such as under fertilization, deficiencies, water stress, wet soil, compacted soil, hot soil conditions or other soil, water, or fertility related issues. Finding the root cause will be critical to address and correct these growth-limiting factors and improve leaf cover.

Diseases that reduce leaf production, attack leaves, or cause wilting can reduce leaf cover and lead to fruit disorders. Leaf feeding insects can also contribute to leaf area losses. Protecting plants against expected diseases and insects along with scouting for signs of infections or infestations is critical to maintain canopies. Air pollution damage can also cause losses of leaf cover in sensitive crops and varieties.

Staking and pruning practices are also important to manage leaf cover. Excessive pruning of tomatoes can expose fruits to excess radiation

leading to fruit damage. Single or double stem training systems, as are often used in greenhouses and high tunnels, are at most risk. Staking peppers has been shown to reduce fruit damage by maintaining leaf cover over developing pepper fruit.

One common problem in high radiation exposure conditions and lack of leaf cover is sunburn. We commonly see sunburn in watermelons, tomatoes, peppers, eggplants, cucumbers, apples, strawberries, and brambles (raspberries and blackberries).



Sunburn necrosis on pepper due to inadequate leaf cover.



Fruit yellowing in cucumber due to loss of chlorophyll with exposure due to inadequate leaf cover.

### <u>Cucurbit Downy Mildew Reported in</u> Delaware

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

Cucurbit downy mildew (CDM) was recently reported in southern New Castle County, and it is spreading in nearby states. CDM <a href="https://example.com/nambee/has-been/eported">has-been/eported</a> in Atlantic, Salem, and Gloucester counties in southern New Jersey. There are also three counties in North Carolina reporting CDM (<a href="https://cdm.ipmpipe.org/">https://cdm.ipmpipe.org/</a>). All the reports in Delaware, New Jersey and North Carolina are on cucumber or cantaloupe, indicating that it is probably Clade II isolates that are circulating in the region and cucumber and cantaloupe crops are most at risk.

Continue to scout all cucurbit crops for CDM symptoms, particularly cantaloupe and cucumber. Preventative fungicides should be considered for these two crops, especially more recent plantings that will be harvested later in the season.

Cauliflower Varieties for Fall Production

Emmalea Ernest, Extension Fruit & Vegetable

Specialist; emmalea@udel.edu

In Delaware, fall cauliflower can be transplanted July 20 through August 10. Short season varieties may be successful when transplanted later into August, depending on fall weather conditions.

I tested cauliflower varieties for fall planting in 2019, 2021 and 2022. All three trials were transplanted at the end of the fall planning window, around August 10. Over the three years I tested thirty different varieties. Five of them were in all three trials: Bermeo, Flamenco, Twister, Alcala, and Toledo. The table below lists all thirty varieties and includes information on the number years they were trialed, relative marketable yield, days to harvest after transplant, and percent marketable yield by weight. The yield that is reported is yield as a percentage of the average yield for the five varieties included in all trials; relative yield greater than 100 indicates higher than average performance and relative yield less than 100 indicates lower than average performance.

Variety	# Trials	Relative Yield (%)	DTH	% Marketable
Candid Charm	1	265	80	98*
Aquarius	1	134	89	73
Bermeo	3	128	88	96
Bishop	2	124	91	82
Minuteman	1	123	87	85
Flamenco	3	112	87	84
Absolute	1	108	92	86
Twister	3	107	92	77
Caniego	1	103	88	91
Freedom	2	103	84	92
Symphony	1	103	92	78
Flamestar	1	101	94	100
Zaragoza	1	98	93	95
Alcala	3	85	91	75
Denali	1	81	96	97
Whistler	1	81	93	96
Argos	1	76	97	89
Synergy	1	72	93	57
Toledo	3	67	100	71
Steady	1	58	86	32
Danville	1	43	101	100
Skywalker	1	40	125	31
B-3277	1	38	128	34
Amazing	1	30	97	72
Snow Crown	1	20	86	9
Adona	2	14	116	37
Klamath	1	10	102	75
Casper	1	4	102	25
Fujiyama	1	0	86	0
Sisquoc	1	0		0

\*Candid Charm developed slight fuzziness in the year it was trialed.

With a planting date around August 10, which is the end of the planting window, shorter season varieties were more likely to be successful. Fall conditions were different in each of the trial years. In 2019, the trial was heat and drought stressed in August and the latest maturing varieties did not produce heads before a hard freeze in late November. In 2021, the season was extended and the last cauliflower from that year's trial was harvested on December 22. In 2022, all varieties matured before mid-November and longer season varieties performed well.

Varieties also differed in their tendency to develop physiological disorders because of heat, or other abiotic stress. This is best represented by the % Marketable column in the chart. Of the five varieties that were tested all three years, Bermeo had the highest relative yield and the highest percent marketable. Candid Charm had the highest relative yield but was only trialed in 2019. It was rated as marketable but did have slight fuzziness in most heads.

### <u>Harlequin Bugs are Especially Bad This</u> Season

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

Harlequin bugs are being seen in especially high numbers this season. They are a pest of many vegetables, but preferentially feed on and damage brassica plants, which includes mustards, crucifers, greens and radish. They also are secondary pests of various fruit and vegetable crops such as beans, cantaloupe, onion, raspberry and even tomato.

Females will lay about 12-barrel shaped eggs in a cluster (Fig. 1). The eggs are easily recognizable by their black and white pattern. Eggs laid now will hatch in 4-5 days. Nymphs feed for a moderately long period of time of 5-8 weeks going through 5 to 6 instars. The whole process from egg to adult can take 45-75 days.

Harlequin bugs suck. They insert their needlelike mouthpart into plant tissue and suck out fluids, which destroys plant tissue and potentially kills plants, particularly young plants. Damage appears as stippling or light-colored cloudy spots in leaves (Fig. 2). Young plants will have larger areas of plant tissue with dead patches, wilting and deformed growth.

Physical removal of eggs, and the bug itself can reduce the pest population without the need for insecticides, although this method works best in smaller operations or organic systems. Harlequin bugs can be controlled chemically by using neonicotinoids or pyrethroids or in organic systems using Spinosad's. Keep in mind that insecticides are more effective against nymphs than adults. Read and follow the label for proper use.

Fig. 1 Harlequin bug eggs, nymphs and an adult



Fig. 2 Harlequin bug damage to broccoli leave



### **Fruit Crops**

### Fruit Crop Scouting Report

David Owens, Extension Entomologist, owensd@udel.edu

Japanese beetles and June beetles are active. June beetles will feed on raspberry and blackberry fruit. Japanese beetles will cause defoliation. They aggregate and may need to be spot treated in some plantings.

### <u>Plasticulture Strawberry Planting and Fall</u> <u>Growth Considerations</u>

Gordon Johnson, Retired Extension Specialist; gcjohn@udel.edu

Early to Mid-September is the optimum period for planting strawberries in the plasticulture system on Delmarva. Most strawberry varieties should be planted by the third week in September for the best spring yields.

Strawberry establishment in the plastic bed takes 3-4 weeks. During establishment, the goal is to have plants root as quickly as possible in the soil and start to send out new growth. This requires attention at planting. Most Delmarva growers use plugs. Plant so that the plug is at the level of the soil or is just covered with a small amount (1/8") of soil but avoid getting soil into the crown of the plant. Deep planting will result in reduced stands and weak plants due to rotting in the crown area. Shallow planting (where part of the plug is out of the ground) will result in plugs desiccating and reduced stands. Soil should be firm around the plug and water provided at planting. It is advantageous to overhead irrigate several times, even with water provided by drip lines, to reduce plant shock. It is also hard to wet beds completely with the drip system in sandy soils thus affecting establishment.

Rooting also requires adequate bed soil temperature. Raise high beds, the higher the better to allow for good drainage. Lay plastic making sure there is a firm crowned bed. The goal is to have the plastic tight against the soil to allow for good heat transfer. Loose plastic will have poor heat transfer and can reduce fall growth. Beds with depressions that allow water to accumulate can lead to disease problems in strawberries.

The goal coming out of the establishment period is to have 3 or more fully green leaves on the plant. After establishment, plants will send out new growth and develop branch crowns during October and November. The goal by late fall is to have 2-3 branch crowns form from the mother plant. Crown growth occurs when temperatures are above 50°F. Flower buds are also initiated during this time. Often, growers receive plugs or plants later than September 20. For later plantings, low tunnels offer an opportunity to maintain temperatures above 50°F for a longer period achieving this goal. Early row covers may also be used to achieve this goal, research has shown that early row covers may not increase crown number but can increase flower bud initiation in the fall. While planting too late can reduce spring yields, planting too early risks too many crowns being developed, especially in Chandler, making them smaller and unmarketable. That is why we don't plant in late August on Delmarva

Plant size in the fall is also critical for high yields the following spring. Plants should be about 8 inches in diameter going into winter. Sugars produced in leaves are translocated into the crowns of the plant where they are converted into starch for winter storage. This starch is then used in the spring at greenup. Inadequate starch storage will also lead to lower yields in the spring. Plants should also go into winter with enough leaves to help insulate the crown.

Runner removal in the fall is also recommended. Avoid removing runners until about three to four weeks following transplant. Complete a follow-up runner removal operation at six weeks following transplant if necessary.



A branch crown forming off the main strawberry crown.



Any runners produced after planting should be removed in the fall. Photo credit NC State Extension.

### **Agronomic Crops**

### **Agronomic Crop Scouting Report**

David Owens, Extension Entomologist, owensd@udel.edu

#### Corn

Western corn rootworm adults are active and worth scouting for if planting corn in the same field as this year's, and especially in western Kent or New Castle County where the ground is heavier. Threshold for next year management (Bt variety with rootworm traits or soil insecticide application) is 1 beetle per plant. I was asked recently what I thought of insecticides tank mixed with a fungicide application. Threshold for stink bugs are 10 bugs per 100 plants for tassel push or tasseling plants but go up to 28 bugs per 100 plants during the early silk stages. Most stink bugs in corn tend to be brown stink bugs which are difficult to kill with pyrethroids. Of them, bifenthrin does the best job, but is also a bit more expensive. In the absence of scouting, a prophylactic tank mix may be of some benefit around edges only, but I don't see it as paying for itself in field interiors. Of course, this is difficult to manage if a field is being treated by plan.

### Soybean

Dectes stem borer is active. We have hit 1500-degree days which some folks have suggested as a time to apply an insecticide. I DO NOT recommend insecticide for Dectes based on a lot of work that Joanne Whalen performed. There's a great DSB fact sheet that explains management considerations here: https://extension.umd.edu/resource/dectesstem-borer-management-soybeans-fs-1196.

Reports of spider mite activity and fields treated came in this week. Spider mite thresholds are half of the plants showing some stippling over  $1/3^{rd}$  of leaves. In 2020, we had a mite trial on station in which they caused heavy defoliation in untreated check plots at R2. Yield was affected, but not by nearly as much as one might think. Dimethoate will slow mites down and reduce them temporarily. Abamectin and Etoxazole are

the best products and my 'go-to' miticides. If considering a mite treatment, these two will take them out and keep them from coming back. There are generics available.

## Full Season Soybean Canopy Differences Jarrod O. Miller, Extension Agronomist,

Jarrod O. Miller, Extension Agronomist, jarrod@udel.edu and James Adkins, Irrigation Engineer, adkins@udel.edu

A full soybean canopy is important for maximum sunlight interception for growth, while also shading out weeds. For canopy development, planting populations and row spacings are methods which you control, while stress (deer, rainfall, etc.) are often out of your hands. Based on last year's population x row spacing x irrigation study, we used drone imagery to examine when canopy closure may occur.

The value we used to measure canopy is "NDVI", which can range from 0.20 to 0.95 in most corn or soybean fields (with 0.95 representing "full" canopy for each crop). In simple terms, NDVI measures "greenness".

For soybeans, NDVI increased with population in June and July, indicating that higher populations were covering the soil faster (Figure 1). By August though, all populations had the same NDVI, therefore similar canopies. Interestingly, the higher populations dropped faster and had lower NDVI after August.

For row spacing, 15" rows maintained higher canopy coverage between July and September (Figure 2), while irrigation had better canopy between July and October (Figure 3). While the differences in NDVI where very small for row spacing, they were still significantly different. Over an entire field this may represent a loss of sunlight that was hitting the soil instead of plant leaves. For irrigated plots, it is obvious the fields remained greener through October, senescing slower and probably maintaining yield.

While we found no difference in yields last season with 60k vs 180k seeds, there were

obvious differences in early season soil cover. Canopy coverage should be considered when lowering populations or choosing row spacing. Shading out weeds is an important management technique, and while lowering populations had no effect in August, it had an effect earlier in the season.

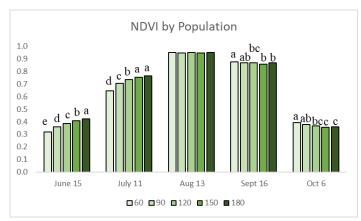
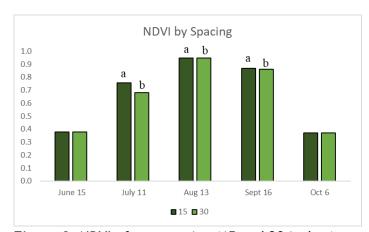
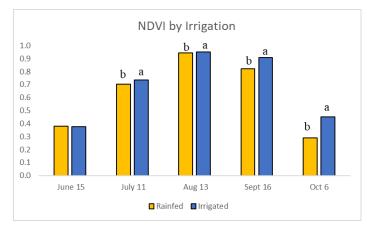


Figure 1: NDVI (normalized difference vegetation index) for each population treatment across the 2022 growing season. NDVI will range from 0.20 to 0.95 most years in corn and soybeans, peaking during reproductive stages. Columns with different letters are significantly different within that month.



**Figure 2:** NDVI of row spacing (15 and 30 inches) across all populations. Columns with different letters are significantly different within that month.



**Figure 3:** NDVI by irrigation treatment over the growing season. Columns with different letters are significantly different within that month.

### General

# Guess the Pest! June 30 Answer: Gummy Stem Blight

David Owens, Extension Entomologist, owensd@udel.edu

Congratulations to Chris Burkhart for correctly identifying Gummy stem blight. This pathogen causes girdling stem lesions, red or brown cankers that ooze a reddish gummy substance. Gummy oozing can also be caused by anthracnose and low pH, so it is not necessarily diagnostic. Vines begin wiling about 3-4 weeks after infection.



### Guess the Pest! July 14

David Owens, Extension Entomologist, owensd@udel.edu

This week, we began transplanting a late tomato trial for worms. We made nice large planting holes, transplanted on not an excessively hot day, and watered the plants right after transplant. A few days later we came out to find a significant number of plants with stem lesions. Some had died, others had fallen but looked like they were trying to regrow. What could be going on with my plants?



Click on the link to log your answer! <a href="https://forms.gle/AjQxxk9QzhegzCw48">https://forms.gle/AjQxxk9QzhegzCw48</a>



### **Announcements**

### **Delaware Grain Marketing Club**

Wednesday, August 2, 2023 6:00-8:00 p.m.
University of Delaware
Paradee Center
69 Transportation Road, Dover, DE

The first Delaware Grain Marketing Club meeting will be on August 2nd at the Kent County Extension Office from 6:00-8:00 PM. Discussions will consist of a market outlook / recap and grain option basics and how to incorporate them within marketing plan. Light dinner will be provided to registrants. Space is limited.

To register, please contact Karen Adams.

E: adams@udel.edu

P: 302-856-2585 ext 540

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

# Survey of Italian Ryegrass in Delaware and Maryland

The number of questions about Italian ryegrass increase every year and it seems as if Italian ryegrass is in many more fields this year than in the past. Therefore, we are interested in investigating what is going on, by gathering seeds from as many fields as possible for some greenhouse testing to see if populations are responding differently to herbicides. We are looking for some help in collecting seeds.



**Italian Ryegrass Seedhead**. If seedheads are smaller than shown-here, then increase the number collected.

How can you help?

- 1. Collect 50 ryegrass seedheads from the field (only seedheads are needed).
- 2. You do not need to wait for the seedheads to dry down.
- 3. Put in paper bag or paper envelope (do not use plastic bags).
- 4. Write the nearest crossroads on bag or envelope.
- 5. Write the crop on the bag/envelope.
- 6. Note if any of the following herbicides were sprayed since last fall:
  - o glyphosate (Roundup)
  - o Axial
  - o PowerFlex
  - o Osprey
  - o Select
- o Assure II
- 7. Store in dry area.
- 8. Deliver to nearest county extension office

OR

Contact Mark VanGessel or Kurt Vollmer for collection or pickup.

Mark VanGessel 302-542-8160 Kurt Vollmer 443-446-4260

Specific farms or individuals will not be identified in any reports or summary.

# Seeking Soils with Acidic pH (<5.8) for soil pH and Lime Requirement Research

The University of Delaware Soil Testing Program and the Penn State Agricultural Analytical Services Laboratory are seeking soil samples for a research project related to improving soil pH measurements and lime recommendations. Specifically, we need approximately 30 low pH soils collected from across Pennsylvania and the Delmarva to represent a variety of soil types and cropping systems.

### What do we need?

A 5-gallon bucket of topsoil collected from the top 6-inches of the soil from agricultural fields, with documented soil pH of 6.0. or lower that has not received lime in at least two years (>3 years preferred).

The sample can be collected from a single location in the field (no need to take a random sample).

Please remove plant residues from the sample.

Please collect the soil when it is relatively dry.

Please provide the latitude and longitude from the sample location (or a precise address) so that we can obtain soil series information. Exact locations of the samples collected will not be shared beyond the project team.

#### When do we need it?

Preferably by late July 2023. We need to receive soils early enough that we can dry and homogenize them prior to starting the research in Fall 2023.

### Where do we bring the soil samples?

You can drop off the samples at any UD Extension office or the UD Soil Testing Lab. When dropping off a sample, please label the bucket with the following: "UD Soil pH Study c/o Amy Shober", your name, where the sample was collected, and a contact number (or email).

For individuals located farther from a UD Extension Office or Newark main campus, we will arrange a sample pick up or have the samples shipped to Newark at no cost to you.

# Who do I contact to arrange sample pick up or if I have additional questions?

Delmarva - Amy Shober (ashober@udel.edu)

Pennsylvania - John Spargo (jts29@psu.edu)

### **Hydroponic Produce Food Safety Webinar**

Thursday, August, 17, 2023 12:00 – 1:00 p.m.

Rutgers University is hosting a free webinar on produce food safety in hydroponic systems.

Here is the link for additional information. <a href="https://plant-pest-advisory.rutgers.edu/webinar-managing-food-safety-risks-in-hydroponic-operations/">https://plant-pest-advisory.rutgers.edu/webinar-managing-food-safety-risks-in-hydroponic-operations/</a>

### Join a GROW Farmer Forum on Cover Crop Seeding

GROW will be hosting a Farmer Forum on July 18th, 2023, at 2 p.m. ET. The forum's presenters will explore everything to do with cover crop seeding, including species selection, cover crop mixes, seed sourcing, seeding rates, seeding methods and timing.

Listen in — and bring your questions — as a panel of farmers from Texas, New York and Delaware discuss their long and varied experience with seeding cover crops! CCA-CEU credits will be available.

### Speakers:

- Jay Baxter, Baxter Farms, Georgetown, DE
- Donn Branton, Branton Farms, Le Roy, NY
- Matt Ensor, Thorndale, TX

Moderator: Jodie McVane, Conservation Agronomist, Texas A&M

Registration is Free! Sign up here.

 $\frac{https://docs.google.com/forms/d/e/1FAIpQLSeehnQO}{qRITR9bJ2cfiu9E3JBodWcv53Gd6Oo0VEMZs5fNMI}\\Q/viewform$ 

Details on how to join the Forum on July 18:

#### Zoom link:

https://virginiatech.zoom.us/j/88338778900?pwd=OUtxRk9zMXoxNEszdFF4UEVKMy84dz09

Meeting ID: 883 3877 8900

Passcode: 150333

### Farmland Rental Rate Study

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

University of Delaware Cooperative Extension is conducting a farmland rental rate survey. The purpose of this project is to evaluate various farmland rental rates and how they impact a farming operations ability to cash flow. You must fill out the survey for each farm that is rented. Land that is owned, does not need to be included in the survey. Your local county agent can assist you in filling out the survey. Your response to the survey is greatly appreciated. Each individual response to this survey will not be shared to anyone in the public and kept private. If you have any questions about this project or survey, feel free to contact Nate Bruce at <a href="mailto:nsbruce@gmail.com">nsbruce@gmail.com</a>. Below is a URL link and QR code to the survey.

### Survey URL:

https://survey123.arcgis.com/share/c5fa508a18 2044359393b2a5e5251c47

Survey QR Code:



# **Weather Summary**

### 1 Week Accumulated Growing Degree Days



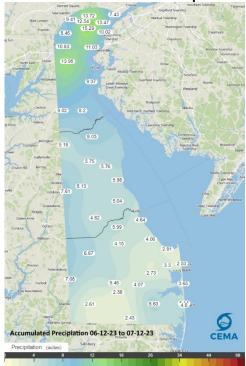
### 1 Month Accumulated Growing Degree Days



### 1 Week Accumulated Precipitation



### 1 Month Accumulated Precipitation



These weather maps are generated from DEOS weather station data and are part of a new Ag Weather website that is under development: <a href="http://deos.udel.edu/almanac/">http://deos.udel.edu/almanac/</a>
Your feedback is welcome!

Weekly Crop Update is compiled and edited by Emmalea Ernest, Scientist - Vegetable Crops and Drew Harris - Kent Co. Ag Agent

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