WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

Volume 30, Issue 19 **July 29, 2022**

Vegetable Crops

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

Sweet Corn

The 2022 Corn Earworm flight has begun. Some of our traps have recorded massive increases in the last four days. At least at one of our locations, we have a trapping study in a block of silking sweet corn. Those traps are capturing far more CEW than our 'location trap'. Tightening spray schedules for fresh market sweet corn is advised to go to a 2-day spray interval following a pyrethroid and a 3-day spray interval following a Besiege or Elevest application. Also, fall armyworm are active in fairly low numbers. Pheromone trap counts are fairly low; at Georgetown we caught 14 last week. Spotty whorl infestations are present. New Jersey has reported heavy infestations in the Cape May region in the past few days. Remember, armyworm kick their feeding into high gear in the last three days of larval development. This means that often by the time damage is easily noticeable, the worms may have already completed their development. Look for windowpaning and signs of fresh feeding in the whorl. Also please note that spotted cucumber beetle feeding can superficially look like early instar armyworm windowpaning. If a tassel or whorl stage sweet corn application is desired, it would be better to save the chlorantraniliprole active ingredient in Besiege and Elevest for silk sprays. I rank the pyrethroid active ingredients as follows: Hero (high rate)>Baythroid>=Brigade>=Warrior>Permethrin. Trap counts are as follows:

Trap Location	BLT - CEW	Pheromone CEW
	3 nights total catch	
Dover	2	51
Harrington	1	77
Milford	3	81
Rising Sun	3	30
Wyoming	1	63
Bridgeville	1	38
Concord	2	36
Georgetown	1	68
Greenwood	2	32
Laurel	2	32
Seaford	1	---
Lewes	---	296

Tomato

As noted, corn earworm are very active now and will continue to be so. It takes 2-3 days for eggs to hatch, and a few more days for larvae to grow large enough to cause damage. Thus, if worm sprays have not already been a regular part of a maintenance schedule, they are advisable either towards the end of the coming week or beginning of the week after. Spider mites are also active. Remember thresholds are 2-4 mites per upper canopy leaflet.

Watermelon

Beet armyworm and corn earworm are active, along with a host of miscellaneous rind feeding worms. It is notoriously difficult to scout for active worm infestations. Rind injury unfortunately does not disappear. Record keeping is very important to document whether or not rind feeding appears to be increasing or

static. Armyworm and earworm are not as susceptible to pyrethroids as other rindworms, consider a 'worm' material if rind feeding is a concern.

Pepper
Scout for beet armyworm infestation. Beet armyworm early instars feed together and spin silk in the upper canopy. They are resistant to pyrethroid insecticides.

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-Brassicas, small grain-Brassica, and small grain-winter legume-Brassica combinations have been successful.

Air Pollution Damage from Ozone in Vegetables

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

We are starting to see evidence of air pollution damage from ozone in sensitive vegetable plants. Those vegetables most susceptible include potatoes, watermelons, cantaloupes, snap beans, pumpkins, and squash.

Damage is most common during hot, humid, hazy weather with little wind. Air inversions, when warm air at the surface is trapped by even hotter air in the atmosphere above, lead to build up of air pollutants that cannot disperse and, consequently, plant injury. The most common form of air pollution injury to plants is ozone damage. Ozone is a strong oxidant and is formed by the action of sunlight on products of fuel combustion. It is moved from areas of high concentration (cities, heavy traffic areas) to nearby fields.

Ozone injury in susceptible vegetable varieties develops when ozone levels are over 80 ppb for four or five consecutive hours, or 70 ppb for a day or two when vegetable foliage at a susceptible stage of growth. Because it occurs in areas with high levels of automobile exhausts, crop injury is often visible on fields near roads, especially with heavy summer weekend traffic. High pollution indexes in Baltimore and Washington are also a good indication that ozone damage may occur.

In potatoes, symptoms of ozone damage occur on the most recently emerged leaves and can be seen as a black flecking. Early red varieties are most susceptible.

Injury on watermelon leaves consists of premature chlorosis (yellowing) on older leaves. Leaves subsequently develop brown or black spots with white patches. Watermelons are generally more susceptible than other cucurbits to ozone damage. Damage is more prevalent when fruits are maturing or when plants are under stress. Injury is seen on crown leaves first and then progresses outward. Seedless watermelon varieties tend to be more resistant to air pollution injury than seeded varieties, so injury often shows up on the pollenizer plants first. “Ice box” types are the most susceptible.

Ozone injury on watermelon

In muskmelons and other melons, the upper surface of leaves goes directly from yellow to a bleached white appearance.

Ozone injury on squash and pumpkins is intermediate between watermelon and cantaloupe starting with yellowing of older interior or crown leaves. These leaves subsequently turn a bleached white color with veins often remaining green.

Ozone injury on squash. Note leaf yellowing

In snap and lima beans, ozone causes small bleached spots giving a bronze appearance on upper leaf surfaces and pods. Leaves may ultimately turn chlorotic and senesce (drop).

Ozone injury can be easily misdiagnosed as mite injury, pesticide phytotoxicity, or deficiencies.

The key to avoiding air pollution injury is to plant varieties that are of low susceptibility and to limit plant stresses. Certain fungicides such as thiophanate methyl (Topsin and others) offer some protection against ozone damage.

Ozone Damage to Cucurbit Foliage Common in Maryland

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

The weather for the last week or so in our area has been ideal for air pollutants to cause injury to vegetable crops, especially cucurbits. One of these air pollutants is ozone, which is considered the most damaging phytotoxic air pollutant in North America. Injury is most likely during hot, humid weather with stagnant air masses. Symptoms consist of small, irregular shaped spots or flecks that range in color from dark brown to black or light tan to white (Fig.1). Symptoms also include stipples (small darkly pigmented areas approximately 2-4 mm in diameter), bronzing, and reddening. These symptoms usually occur between the veins on the upper leaf surface of older and middle-aged leaves, but may also involve both leaf surfaces for some cultivars. The type and severity of injury depends on the duration and concentration of ozone exposure, weather conditions, and plant genetics. Some or all of the symptoms can occur on vegetables under various conditions.

Symptoms on one cultivar can differ from the symptoms on another. With continuing ozone exposure, the symptoms of stippling, flecking, bronzing, and reddening are gradually replaced with chlorosis and necrosis (Fig. 2). Early ozone foliar damage can resemble spider mite injury. The presence of mites can be confirmed by examining the underside of the leaf. Mite populations would have to be comparatively great ($\geq$45/leaf) to cause the type of leaf injury shown in Figure 2. As the exposure to ozone continues the spots may fuse forming larger damaged areas (Fig. 3). Due to the tissue collapse induced by ozone, leaves are prone to infection by pathogens such as *Alternaria* sp (early blight) and will senesce sooner. Symptoms of ozone damage can appear on one side of a plant or stem depending on the source of pollution and micro-climate.

The injury pattern on watermelon foliage is initially observed on older mature leaves near the crown or center of the plant, often progressing with time to the younger foliage.

The yellowing of the plant centers in rows of watermelon is quite distinctive and can give fields an obviously striped pattern of alternating yellow and green bands. This type of injury on watermelon can be referred to as "center of the crown dieback." In contrast, injury on muskmelons is typically less severe and is visible at a later stage of plant development. Irrigated plants will promote greater symptom development if the cultivar is sensitive compared with drought-stressed plants. Ozone injury on watermelons generally appears in mid to late July prior to fruit maturation.

Trying to estimate yield loss due to air pollutants in the field is difficult and only approximations can be made. In a California study, ozone damage to crops caused the greatest yield losses (10-30%) in watermelon, cantaloupe, grape, onion, and bean. Other research has shown that when average daily ozone concentrations are too high, yields of vegetables can be reduced by 5-15%.

Figure 1. Ozone damage to cucurbit foliage

Figure 2. More advanced ozone damage to watermelon foliage

Figure 3. Ozone damage to cantaloupe foliage

Fruit Crops

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

Grapes
University of Kentucky has an excellent grape IPM scouting guide available at: https://grapescout.ca.uky.edu/insectpests

Apples
We have placed brown marmorated stink bug traps in several apple blocks recently. Last week, 2 of the 4 blocks captured 5 or more stink

bugs, potentially justifying a stink bug spray. I suspect that by the time this is posted, the remaining blocks will have reached a cumulative 5-10 stink bug nominal action threshold. Brown marmorated stink bugs are mating and laying eggs in other crops. Brigade and neonicotinoid insecticides are probably going to provide the best efficacy if targeting brown marmorated stink bug.

Sooty Blotch and Flyspeck in Apples

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

August and September are the time for sooty blotch and flyspeck (SBFS) diseases of apples to build up. These problems are caused by many different fungi and are managed together.

Sooty blotch appears as dark, irregularly shaped areas of black smudges on fruit. Flyspeck develops distinct black, pinhead-sized spots, generally clustered in groups of 10 to 50. These signs are fungal growth on the surface of apples and often appear together. Other than causing cosmetic damage, SBFS is not technically a disease, as it does no real harm to apples. However, significant blemishing causes fruit to be downgraded and not to be saleable.

The different life cycles for the many fungi that may contribute to the SBFS disease complex are not well understood. Different species of fungi predominate in different apple production regions, but all have life cycles that are similar enough that symptom development can be reasonably well predicted, and a single management approach used.

Infection by SBFS fungi occurs soon after fruit set, though symptoms may take several weeks to show, depending on weather. Disease development is dependent on high levels of humidity in the tree canopy. Extended wet weather or periods of high humidity enable SBFS fungi to colonize apples and grow, but they grow slowly if at all during dry periods. New infections can occur throughout the summer to harvest. The fungi may remain invisible for several weeks, first appearing in late summer or early fall. Some SBFS fungi apparently have secondary spore production and infection cycles related to rain and high humidity, with higher rates of disease occurring in years with heavy or frequent rain. These fungi appear to overwinter on plants adjacent to apple orchards. The source of many of the SBFS fungi is wild plant hosts in woods or hedgerows adjacent to orchards such as wild and cultivated brambles

Fungicides applied approximately every two to three weeks, starting with second cover, will generally control SBFS. The most effective fungicides against SBFS include the strobilurins, Flint, Sovran, Pristine, and thiophanate-methyl, Topsin, T-Methyl. Captan is not as effective, but provides good control, and is a useful multi-site fungicide to mix with the more effective single-site materials for resistance management. Inspire Super and other pre-mixes that contain a QoI (Luna Sensation, Merivon) also provide good control.

Sooty blotch and flyspeck of apple. Photo by Bruce Watt, University of Maine, Bugwood.org

SBFS blemishes may be removed or significantly reduced using postharvest fruit dip treatments in low-concentration chlorine bleach solutions (500 to 800 ppm chlorine) followed by brushing on a commercial grading line.

Anything that slows drying in apple tree canopies encourages SBFS development. So larger trees that are poorly pruned develop more disease. Similarly, trees in areas where air circulation is poor develop more disease. Cutting back these border plants, particularly well-known hosts such as wild blackberries, reduces disease pressure.

Keep grass in the orchard mowed to reduce humidity in tree canopies.

Apple cultivars vary in the amount of SBFS at harvest, but this is primarily related to harvest date rather than resistance pathogen colonization. Later harvested cultivars have the highest SBFS incidence. Lower SBFS incidence on the earlier maturing cultivars apparently results from disease avoidance, as these apples are exposed to fewer hours of wetting and high relative humidity, environmental factors favorable for growth of SBFS fungi.

This article was adapted from the New England Tree Fruit Management Guide https://netreefruit.org/apples/diseases/sooty-blotch-and-flyspeck

Agronomic Crops

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

Soybean
Stink bugs continue to be very active, and more reports of fields at or near threshold at R3 were received this week. Generally, stink bug threshold is 5 bugs per 15 sweeps (nymphs and adults, brown, green, brown marmorated and dusky all combined). I suspect that a lower threshold may be justifiable in Plenish soybean, perhaps ~ 4 bugs per 15 sweeps.

The 2022 corn earworm flight is beginning. Open canopy, drought stressed fields are the most attractive to earworm. Flowering soybeans R1-R3 are also highly attractive as moths will feed on nectar. It takes 2-3 days for earworm eggs to hatch, and there tends to be high mortality in early instars. It takes about 6 days for larvae to molt to the third instar. Begin scouting for earworm by the end of next week. If earworms are found, NCSU has a handy threshold calculator worth checking out to determine if a field is above threshold: https://www.ces.ncsu.edu/wp-content/uploads/2017/08/CEW-calculator-v0.006.html. Remember: corn earworm control with pyrethroids can be inconsistent (see also the efficacy note in the vegetable sweet corn scouting segment). If using a pyrethroid because of the lower price, it is possible that a field may still be above threshold after treatment.

Sorghum
Begin scouting flowering or head-push sorghum for corn earworm. Take a bucket and beat 5-10 sorghum heads in 5-10 locations in the field, counting number of earworms that fall out. Texas A&M has a threshold calculator similar to the North Carolina soybean calculator: https://extensionentomology.tamu.edu/sorghum-headworm-calculator/. While scouting for earoworm, look for signs of sugarcane aphid infestation. So far, reports from North Carolina and Virginia have not indicated elevated activity, but this aphid can reproduce extremely quickly.

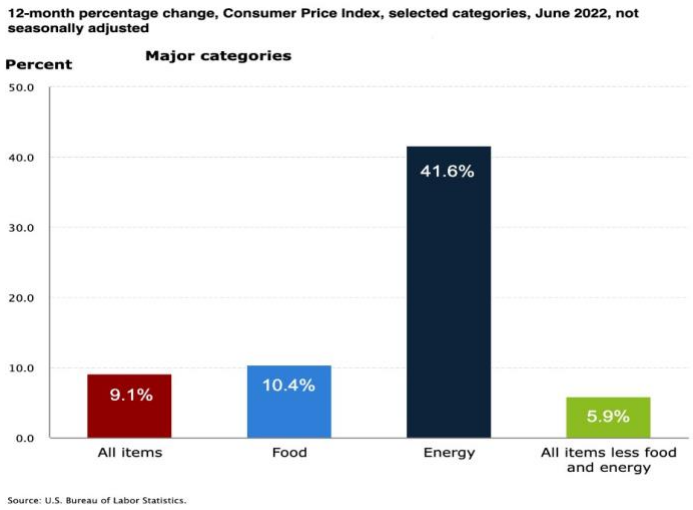
General

Recessionary Pressures in Agriculture – *Nate Bruce, Farm Business Management Specialist,* nsbruce@udel.edu

One technical definition of a recession is when the national gross domestic product (GDP) shrinks in two consecutive quarters occurs. This last Thursday (7/28) the Commerce Department announced GDP shrunk by 0.9% from April to June, meaning the economy has entered this definition of a technical recession. The definitive call for determining whether the economy is in a recession is up to the National Bureau of Economic Research, which defines a recession as "a significant decline in economic activity" lasting "more than a few months." The set of circumstances for the recent economic downturn are broad ranging from Covid, supply chain issues, labor issues, federal government relief packages, and geopolitical issues such as the Ukraine War.

How the factors involved in this recent economic downturn impact agricultural producers is not fully known but can vary widely depending on the crops or livestock grown. A recent article from the University of Georgia Cooperative Extension discusses this and a link to the article is provided below. They stated that the agricultural industry typically serves as a buffer to the economy during periods of economic recession. Producers raising traditional row

crops, chickens, cattle, or anything similar will most likely remained unaffected and even provide support to the state economy during periods of recession because production will more than likely not falter. Those raising niche products such as specialized meat products, vegetables, and particularly cotton may feel recessionary pressures greater because consumer spending is lessened. The consumer price index (CPI), which is a measure many economists use to measure inflation, jumped to 9.1% in June. Other categories included food increasing to 10.4%, energy at 41.6%, and all other items less food and energy at 5.9%.



https://newswire.caes.uga.edu/story/8997/recession-and-agriculture.html

Annual Worker Protection Standard Training is Required! - *Kerry Richards, Pesticide Safety Education Coordinator;* kerryr@udel.edu

Workers must be trained ANNUALLY before they enter areas treated with pesticides within the past 30 days. Employees who are considered pesticide handlers must be trained prior to doing any handler tasks. Training must be completed using EPA Approved training materials and monitored by someone who is available to answer questions.

Examples of EPA approved training materials, in English and Spanish, can be found at: https://ag-safety.extension.org/understanding-and-applying-the-worker-protection-standard-videos-for-workers-and-handlers/

COMING SOON: Watermelon WPS Worker and Handler training

Labor contractors are required to provide to workers that they make available for growers. However, it is the grower's responsibility to make sure the training has been provided. If documentation of training **CAN NOT** be provided **workers** should **NOT** be allowed to enter any area treated with pesticides in the last 30 days.

What can you do if documentation of training is not available?

If documentation of WPS training is not available, training may be provided using one of the training examples listed at the link above.

- These materials meet the requirements required by WPS
- They must be provided in a language that workers understand
- Someone must be available to answer questions during the training
- Training should be documented

Training documentation form can be found at: https://agsci.colostate.edu/cepep/wp-content/uploads/sites/35/2016/06/WPS-Verification-Pesticide-Safety-Training-form-for-Employees-2016.pdf

Announcements

2022 Beginning Farmer Training Program

The Delaware Beginning Farmer Program is for new and beginning 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 learn and grow 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, 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 Fischer Greenhouse on the College of Agriculture and Natural Resources' campus in Newark, unless otherwise noted.

Wednesday, September 14, 6-8 pm, Course Orientation, Soil Health

Wednesday, September 28, 6-8 pm, Variety Selection

Saturday, October 1, 9-11 am, Hands- On Planting, Setting up an Indoor Seed Starter Unit

Wednesday, October 12, 6-8 pm, Small Farm Business Planning

Saturday, October 15, 9-11 am, Field Trip to Against the Grain Farm at William Penn Farm

Wednesday, October 26, 6-8 pm, Weed Identification and Management, Small Scale Irrigation

Wednesday, November 2, 6-8 pm, Integrated Pest Management: Insect and Disease Pests

Saturday, November 12, 9-11 am, Field Trip to Worrilow Hall Labs, UD Fresh to You

Wednesday, November 16, 6-8 pm, Delaware Beginning Farmer Resource Panel with DDA, NRCS, Farm Bureau and others

Register online at: https://www.pcsreg.com/2022-beginning-farmer-training-program

National AgrAbility Training Webinars

Each webinar begins at 2:00 p.m. EDT on the given Thursday. For session descriptions and more information, visit ***http://www.agrability.org/ntw-encore/***.

August 4: "Farm Rescue - Helping Farm Families in Crisis"

August 18: "Vision Solutions for Farmers"

September 1: "Working with Capstone Students to Augment AgrAbility Services"

September 15: "Managing Stress on the Farm"

September 29: "Making Lemonade When Outreach Events Hand You LEMONS!"

October 13: "Build Resilience into Your Farm: Let Nature do the Heavy Lifting"

October 27: "Low Stress Marketing for Farmers"

A question & answer period is scheduled for each presentation.

To participate in any of these free webinars, ***click here to access the online registration form***. Please pass on this invitation to others you believe may be interested. Contact AgrAbility at 800-825-4264, visit ***www.agrability.org/ntw-encore***, or email ***agrability@agrability.org*** if you have questions.

DNLA Summer Turf & Nursery Expo

Wednesday, August 3, 2022
UD Botanic Gardens, Newark, DE

Discussions/demonstrations at DNLA's Annual Summer Event Include:

· Planting Alternatives to Invasives

· UDBG Trial Garden - Color Galore

· Turfgrass Trials & BMP's for Turfgrass Establishment

· Equipment & New Product Infomercials

· How Not to Kill Your Transplanted Tree & BMPs For Disease & Insect Issues

· Pest/Disease Walk

· Turfgrass Weed & CNP Plant ID Challenge

Registration includes a BBQ lunch, tradeshow and seminars

5 Delaware pesticide applicator recertification credits in Category 03 will be awarded. Credits for PA, MD and ISA will also be available. 1 DE Nutrient Management CEU will also be awarded.

Event will be outdoors and held rain or shine. A mask is required when entering UD facilities.

Event details available here.

Register online at:
https://2022dnlasummerexpo.eventbrite.com/

Field Tour of Carvel Crops Research

Wednesday, August 10, 2022 3:00-6:00 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 2022 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.

More details will follow in the coming weeks.

Nematode Field Day

Thursday, August 18, 2022 3:00-6:00 p.m.
University of Delaware
Carvel Research & Education Center
16483 County Seat Hwy, Georgetown, DE

Covered topics will include soybean cyst nematode seed treatments and resistance genes, updates on lima bean resistance breeding for root knot nematodes, RKN in cucurbits, summary of nematode survey results conducted in recent years, and management strategies. 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.

Pesticide credits will be available for both Delaware and Maryland.

Registration information can be found at udel.edu/009690. A boxed dinner will be included for those registered by August 12.

Please contact Alyssa Koehler akoehler@udel.edu with any questions.

Soil Health Field Day

Tuesday, August 16, 2022 9:00 a.m.-1:00 p.m.
Baxter Farms, 23073 Zoar Rd, Georgetown, DE

The Delaware Soil Health Partnership will hold an in-person soil health field day on Tuesday, Aug. 16, at 9 a.m.

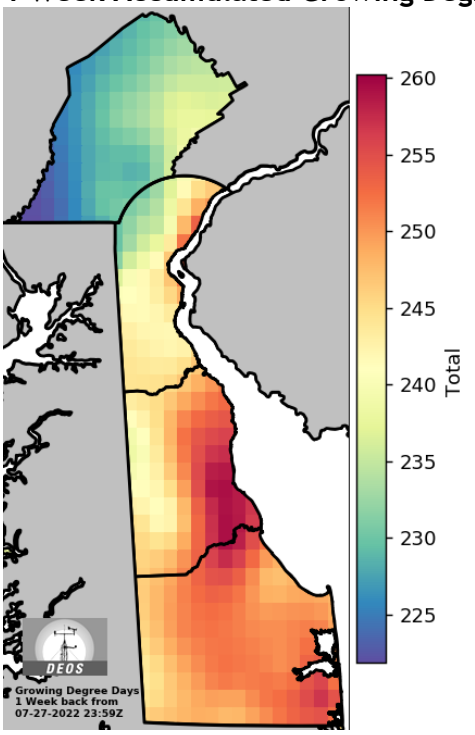
Rick Clark, a fifth-generation farmer from Williamsport, Ind., will discuss farming green and his experience with organic no-till on nearly 7,000 acres. University of Delaware Extension agents will provide the latest research updates while Jay Baxter, owner of Baxter Farms, will discuss experiences in the field.

The field day will be held at Baxter Farms, 23073 Zoar Rd, Georgetown, DE 19947 in Georgetown, Del. Lunch will be provided. Nutrient management credits are pending, and preregistration is required.

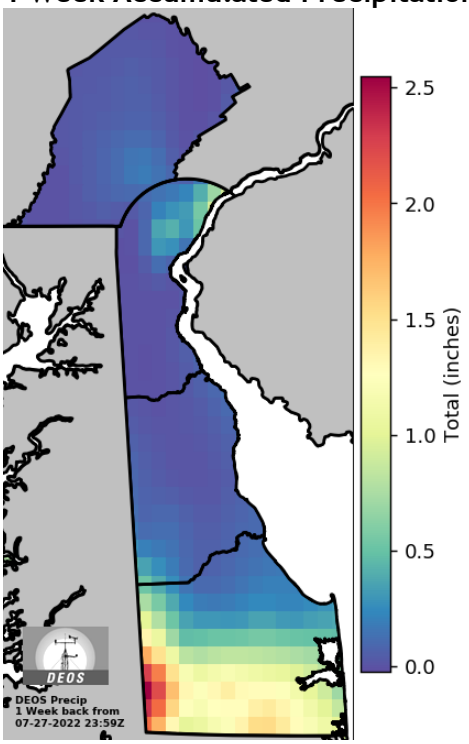
For more information or to register go to https://www.sussexconservation.org/events/field-day.html.

Weather Summary

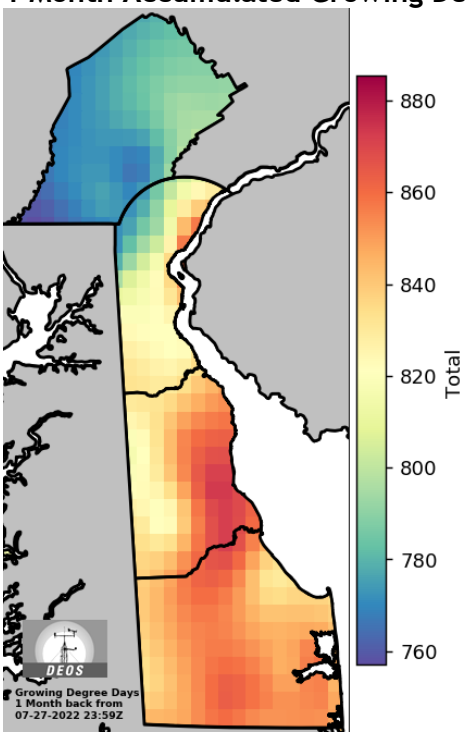
1 Week Accumulated Growing Degree Days



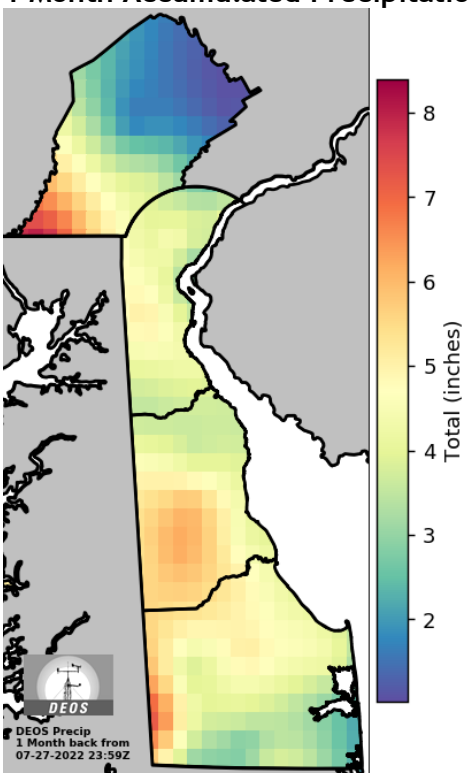
1 Week Accumulated Precipitation



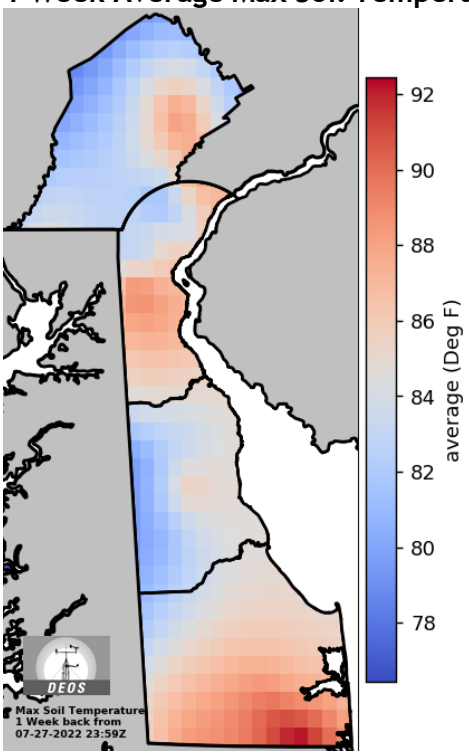
1 Month Accumulated Growing Degree Days



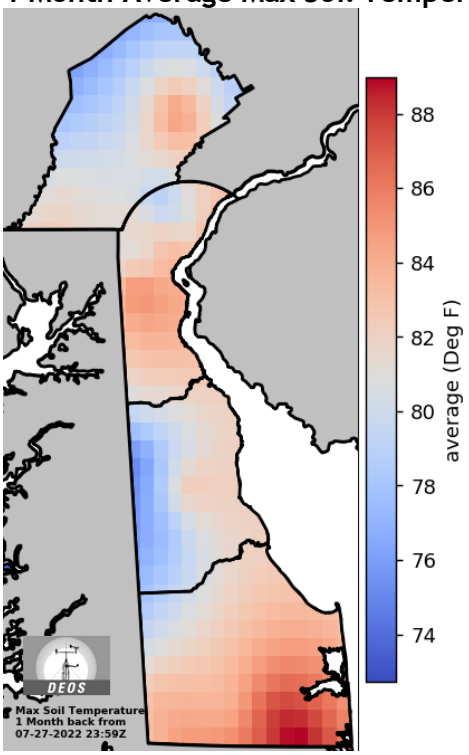
1 Month Accumulated Precipitation



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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