

WEEKLY CROP UPDATE



UNIVERSITY OF DELAWARE
COOPERATIVE
EXTENSION

Volume 30, Issue 23

August 26, 2022

Vegetable Crops

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

Cole Crops

Continue scouting cole crops. With the hot weather, be prepared to deal with both harlequin bug and diamondback moth. Diamondback moths have been present in larger numbers recently, while we still have not seen a cabbage looper in plots at Carvel REC.

Watermelon

Continue to scout for cucumber beetles and rind feeding lepidopteran worms on late melons.

Sweet Corn

Scout any whorl stage sweet corn for fall armyworm. New Jersey continues to report above threshold FAW populations, and we have been seeing them in various other crops. Thresholds are 15% early whorl infestation, 30% mid whorl, and 15% infestation at tassel push. While Besiege, Elevest, and Vantacor are labeled, using them for fall armyworm will use one of the chlorantraniliprole applications which in my opinion, are more important to save for the silking stages.

We are having a [sweet corn oriented meeting](#) at the Carvel REC on Tuesday, September 13 at 4:45. Attendees will have a chance to look at plots as well as hear updates on sweet corn management. With the hotter weather coming in and elevated moth counts, it may be best to tighten spray intervals. Just be sure to scout for aphid population increases.

Earworm counts from Thursday are as follows:

Trap Location	BLT - CEW	Pheromone CEW
	3 nights total catch	
Dover	4	137
Harrington	1	46
Milford	12	124
Rising Sun	18	151
Wyoming	2	59
Bridgeville	3	53
Concord	11	66
Georgetown	1	98
Greenwood	2	47
Laurel	14	94
Seaford	3	---
Lewes	---	296

Spinach

Scout spinach as soon as its up for beet armyworm. New Jersey is reporting heavy beet armyworm activity in some locales. Remember, pyrethroids will not control beet armyworm. Other options include the diamide class, Avuant, Intrepid, Bt, Proclaim, and Radiant or Entrust.

Lima Bean Downy Mildew and Other Pod

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

Much of the information below was taken from the bean chapter of the 2022-2023 Mid-Atlantic Commercial Vegetable Production Recommendations Publication https://www.udel.edu/content/dam/udelImage/s/canr/pdfs/extension/sustainable-agriculture/BFP_2022-2023_Beans.pdf

Lima bean fields are flowering and setting pods currently and should be scouted in the next 4 weeks for the presence of downy mildew as well as white mold and *Phytophthora capsici*.

As we move into late August and September, cooler temperatures, heavy dew and fogs, continued rainfall in some locations and the potential for heavy rains from tropical storms can be favorable for development of downy mildew in lima beans. Wet conditions also favor the development of other diseases, such as white mold, *P. capsici*, and *Pythium*.

Conditions for downy mildew are most favorable when fields receive 1.2 inches or more of rain within a 7-day period. Heavy dews and fogs reduce the amount of rainfall necessary to start infection. In 2014, a team of researchers and Extension staff at the University of Delaware developed a risk tool to allow growers to know when downy mildew conditions are favorable. The goal was to give field personnel, consultants, and growers a tool to better time their field scouting efforts and pesticide applications and thereby reduce costs by spraying less often. The tool works by combining the disease history of the field, as provided by the grower, with weather information from the Delaware Environmental Observing System (www.deos.udel.edu) to provide a risk score for each field using different downy mildew risk models. Higher risk scores suggest the need for growers to step up scouting efforts, particularly during times when the plants are more susceptible to disease. Accessing and using the tool (<http://dims.deos.udel.edu/limabeanrisk/>) is simple. The Delaware Downy Mildew Lima Bean Risk Tool is a web-based system that requires a user account to gain access. To obtain a user account, please e-mail deos-info@udel.edu with "Lima Bean Risk Tool" in the subject line. The model only describes the risk of downy mildew formation within the field and does not account for the transfer of downy mildew spores between fields. The system automatically updates every day and shows the disease risk both for the day and throughout the growing season, as well as a few other pertinent weather variables.

Race F was the only race of downy mildew identified in baby lima beans in the past 12 years

in the region and most of our acreage is being planted to susceptible varieties (Cypress, Meadow, C-elite Select, Maestro, and 184-85 are all susceptible to race F). The M-15 variety that was planted on significant acreage in the past is resistant to race F of downy mildew (but not race E); however, it is not being planted currently to any extent. The more recently released variety 'Emperor' is listed as having race F resistance.

Since environmental conditions vary from field to field and in different locations within a field, use the above information as a guideline. Fields that are not rotated and planted to susceptible varieties should be scouted regularly for disease occurrence.

Under favorable environmental conditions the following preventative fungicides are recommended for Downy mildew Forum - 6.0 fl oz 4.18SC/A, Headline - 6.0 to 9.0 fl oz 2.09 EC/A, Ranman 400 SC 2.75 fl. oz/a Omega 500F 0.5-0.85oz/A or Ridomil Gold Copper-2.0 lb 65WP/A. Application at flowering or when pods are first forming is recommended if weather is favorable for disease.

If disease pressure is high, use Ridomil/Gold Copper, or the phosphite (also called phosphonate) fungicides (ProPhyt, K-Phite, Phostrol, and others).

Ridomil/Gold Copper and phosphite fungicides provide some curative activity if applied at the first signs of disease. Another product that is labeled on lima beans for white mold control is Omega, which has shown excellent control of downy mildew at the 8.0 fl oz/A rate when used as a preventative application where control of both white mold and downy mildew are targeted.

Phytophthora capsici will most commonly be found in low lying wet field areas, irrigation wheel tracks, and shaded field borders. In fields with a history of *P. capsici*, applications of Ridomil Gold Copper 2.0 lb 65WP/A, Forum - 6.0 fl oz 4.18SC/A, Ranman 400 SC 2.75 fl. oz/a Omega 500F 0.5-0.85oz/A or phosphite fungicides when applied for downy mildew may suppress the disease.

See the [2022-2023 Mid-Atlantic Commercial Vegetable Production Recommendations](#) for more information on fungicides for lima beans.



Downy mildew on limas is characterized by white downy growth on the pods, petioles and racemes. A reddish-brown border often surrounds the infected area on the pods.



Downy mildew on petioles and stems often produces the distorted “crooks” seen in this picture.

Planting Small Grains for Spring Vegetable Windbreaks - Gordon Johnson, *Extension Vegetable & Fruit Specialist*; gcjohn@udel.edu

Small grain windbreaks are a useful tool when planting early warm season vegetables such as watermelons or tomatoes the following spring. Small grain crops planted in early fall will overwinter and then elongate and head in the spring. Depending on the crop used and when they were planted in the fall, they can reach 3-5 feet in height by the end of April. Small grain windbreaks serve two main functions: 1) they provide protection against wind that can desiccate or physically injure transplants and young plants and reduce sandblasting in sandy soils and 2) they help retain heat by reducing convective heat losses of wind passing over plant beds. Small grain windbreaks are particularly useful where vegetables are grown on plastic mulch. They also can serve as a winter cover crop.

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.

Windbreaks are planted in every drive row, between every 2-3 beds or between every bed. Maximum protection and earliness are achieved when windbreaks are used between each bed and black plastic mulch is used for beds. Orientation of windbreaks so they are planted East-West is preferred to reduce shading.

Setting up windbreaks can be done in several ways. A simple method is to plant the field solid with the small grain and then till planting strips using a narrow tillage device (tractor mounted rototiller or multiple passes with a narrow field cultivator) in the spring before it puts on much growth. Tilling bed strips is best done in March. Alternatively, a non-selective herbicide can be used to kill strips in the late winter or early spring and then tilled later. Another method is to set up grain drills to plant 2 or 3 rows of small grain and then block the seed meters to skip the area where the beds will be in the spring. This allows more flexibility in the spring for tilling beds because there is less vegetation to manage. A third method we have tried in demonstrations

at our UD Georgetown research station is to plant bed areas with a winter killed cover crop and then rye in the windbreak areas. This is done by dividing up and blocking certain seed meters on the drill. We use a drill with both small grain seed box and a small seed box. We plant forage radish with the small seed box in the area we want to have the bed and block of the other seed meters and do the opposite for the rye in the larger seed box. In no-till systems, a solid small grain planting is made in the whole field and then rolled in the spring with a roller crimper leaving windbreaks.



G Johnson, University of Delaware

A thick stand of rolled rye with windbreaks left in place that can be used for no-till planting of many different vegetables.

It is best to plant windbreaks earlier in the fall to get good fall tillering. The last week in September or first week in October is ideal for most of Delaware and mid to upper Delmarva. Rye can be planted later but will then be delayed in the spring by several days and tillering may be reduced. You should plant at standard rates or higher (120 lbs/acre equivalent or more) for the most effective windbreaks. Higher seeding rates should be considered when planting late.

Tomato Disease and Fruit Quality Problems

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

This week has seen a great number of problems pop-up in tomato fields throughout our area. The first problem is that bacterial and fungal diseases are spreading. The fungal pathogens usually can be contained with timely (as difficult as that might be) fungicide applications. Bacterial spot or speck on the other hand can be much more difficult to control once they get started and the weather remains wet and warm. Using Actigard along with a protectant fungicide (mancozeb) and a copper product will usually reduce the severity of the disease (Fig. 1).

Several other fields had similar symptoms as seen in Figure 2, where the bottom half of the foliage has been decimated but the top of the plant's foliage looked okay. If fungicide sprays are applied as needed the top foliage should do well enough. The problem arises with the green fruit being exposed by the missing foliage. These fruits are in danger of sunburn or sunscald (Fig. 2) and rain check (the many, tiny concentric cracks that form on the shoulder of fruit and can expand over time (Fig. 3). This is when using shade cloth (20-30% shade-inducing) would greatly reduce the chances of sunscald and rain check.



Figure 1. Row on the right had fungicides and Cu applied, row on left same fungicides and Cu plus Actigard.



Figure 2. Bottom half of plants have lost a great deal of foliage and expose fruit to sunscald



Figure 3. Exposed side of tomato fruit with rain check.

Fruit Crops

Evaluating Potential Fruit Planting Sites -
Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu

There has been an increase in interest in planting fruits in Delaware. This is a positive trend that matches the interest in buying local and can also provide local fruit to the steady influx of visitors in the region.

Success with tree fruits, blueberries, grapes, brambles, and other long-term perennial fruits

begins with selecting a proper site. I have visited too many sites where growers have lost expensive planting material because of poor locations and poor planning. Landowners most often are not buying properties with fruit planting in mind and many properties just are not suitable for fruit.

Water Table

The most common issue with planting fruit is that of high seasonal water tables. When water rises in winter, it can saturate part of the root zone of the fruit plant and roots will then die due to lack of oxygen. Roots injured by waterlogging are also then more susceptible to root rot pathogens. Fruit plants with water damaged roots also have fewer effective roots which can make them more susceptible to other plant stresses such as drought. In the end, these fruit plants will die prematurely, have shorter life spans or will be less productive.

The best time to evaluate a site for the height of the seasonal water table is in late winter. Find the lowest elevation in the property being evaluated and dig a hole 6 feet deep using a posthole digger. If any free water is found in the hole above 4 feet, then the site is not suitable for most deep-rooted perennial fruits such as tree fruits and grapes. With brambles and blueberries water should not be found within 3-4 feet of the surface in these observation holes. Also examine the soil that comes out of the borings. If you see considerable amount of gray colored soil, this is an indication of water saturation. Do these borings throughout the property and map your site and avoid planting fruits on any areas with high water tables.

Another problem with water saturation and roots can be perched water tables. This is when an impervious soil layer does not allow water to drain, and a saturated area develops above that layer. If perched water tables are found, the area is again not ideally suited for fruits. Subsoiling can fracture these layers if done properly but the layers may reform in a few years.

In high water table soils, it may be possible to grow some fruits such as brambles or blueberries by creating high mounds to grow on. In this case, the growing area is elevated 2-4 feet by moving

soil to create a mounded ridge where fruit is planted. While this is possible, it is expensive and must be done in such a way that water does not collect between the mounds.

Air Drainage

Another issue with fruit siting is air drainage. Recently, there have been winters on Delmarva with sub-zero conditions which can cause problems with winter kill in some grapes and brambles and bud damage in some tree fruits. Lower areas where cold air drains to also are more susceptible to late frost damage to flowers in the spring, particularly in peaches, nectarines, apricots, and plums. All sites should be evaluated for air drainage by doing elevations on the property. Fruit should be planted on the highest elevations and frost pockets should be avoided. Frost pockets are easily seen by looking where frost is found during late spring frost events. On Delmarva, an issue we have is that some areas are just completely flat, with low elevation. These areas will not allow for air to drain and can also have issues with cold air accumulating.

Soil pH for Blueberries

Soil pH is an issue with blueberry establishment. Blueberries require a soil pH of 4.5-4.8. Most of our soils have much higher pHs and the soil must be acidified before blueberries can be planted. This can take 1-2 years using sulfur as the acidifying agent.

Nematodes

Sites should also be evaluated for nematodes, soil pests that can be damaging to fruit roots before planting.

Fall Planting of Fruit Trees - Gordon Johnson, *Extension Vegetable & Fruit Specialist*; gcjohn@udel.edu

Fall planting is a common practice in southern states: In these southern areas, when trees are planted in the fall, the roots grow through the winter, resulting in greater tree growth during the first season—which ultimately leads to faster vigorous growth. Delmarva is in the Northern range where fall planting is successful. Those fruits best adapted to fall planting are apples

and pears. Stone fruits (peaches, plums, cherries) are best planted in the spring to avoid possible winter kill.

The following are some guidelines from Cornell University for Fall planning of apples:

Successful fall planting requires a combination of conditions: (1) a well-prepared site with good drainage, weeds under control and minimal rodent and deer populations, (2) mild weather and warm soil temperatures for several weeks after planting to encourage root establishment, (3) nursery trees that begin their dormancy process early, including leaf drop, (4) a nursery supplier that is willing to fall dig trees, (5) sufficient labor to plant trees quickly without drying, and (6) proper soil conditions to re-close the soil around the roots without leaving air pockets.



Planting holes of fall planted apples should be filled and tamped so that there are no air pockets. Do not attempt to plant in wet soils that cannot be properly back filled

The roots and soil need to be in intimate contact immediately after planting to ensure the trees survive. Where a tree planter is used, the presser wheels need to be adjusted properly.

Hand planted trees should be tramped well around the trunk. A follow-up watering is recommended if a soaking rain does not occur within a few days.

If all these conditions are met, fall planting of apple trees can help your new orchard get off to a quick start next spring.

Agronomic Crops

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

Soybean

Small earworms continue to be reported in double crop fields. While some fields appear to be at threshold, the worms are still very small, and it is possible that many of them will not make it to the 3rd instar, or approximately ¼ inch. It takes worms about 5-6 days from egg hatch to reach the 3rd instar. If you are seeing only very small worms, you may want to think about rescouting early next week before pulling the trigger. Also take a look at the NCSU threshold calculator as a useful tool for decision making: <https://www.ces.ncsu.edu/wp-content/uploads/2017/08/CEW-calculator-v0.006.html>.

Stink bugs continue to be reported in some fields. Pay attention to soybean growth stages! R4 - R5 is the most susceptible stage for stink bug damage. This is when there are pods present on at least one of the upper four nodes. R5 is when those upper pods have the beginning of seed. At R6 when the seed in those upper pods is touching each other and the pod is full, stink bugs are less likely to cause significant yield injury, so thresholds can drift upwards. At R7 when the plants begin to senesce and pods start changing color, thresholds are at least double. Pay attention to the species present, as green stink bugs are fairly easy to control with pyrethroids, while brown and brown marmorated stink bugs are best controlled with bifenthrin.

Sorghum

We found our first sugarcane aphids in a southern Sussex sorghum field at boot/early head emergence. Aphids were only found on a

single lower canopy leaf, but they were thick. White sugarcane aphid is a yellowish white color, smooth body, and small, black cornicles. Pay attention to late sorghum for this pest. It tends to build up in low canopy leaves first. White sugarcane aphid should be scouted frequently, at least weekly, if not more so. At the boot stage, thresholds are 20% infested plants, while flowering to dough stage is 30%. The only effective materials for white sugarcane aphid are Sefina, Sivanto and Transform.

Do not confuse white sugarcane aphid with corn leaf aphid, which is fairly abundant this year. Corn leaf aphids tend to build up large colonies on the flag leaves. However, I have often observed these aphids to disappear once the head emerges. There are also a lot of parasitoids and predators that go after them. Beneficials are much less effective on white sugarcane aphid, but at least they will be present in fields with corn leaf aphid. For these reasons, I think of corn leaf aphids as beneficial, kickstarting our predator complex without persisting in fields or doing any significant damage.

While looking at leaves for aphids and their tell-tale honeydew slicks, Beat heads into buckets to determine if the field is above threshold for armyworm, earworm, or webworm. Webworms seem to be a bit more abundant this year, but are less of a concern because they are much smaller than other worms, and thresholds are double that of an earworm threshold.

Scouting for Stalk Rots in Corn - Alyssa Koehler, *Extension Field Crops Pathologist*; akoehler@udel.edu

August has been hot and dry, with many non-irrigated corn fields rapidly approaching harvest. Over the past week, we have started to see plants with accelerated senescence due to stalk rots (Figure 1). After pollination, the ear becomes the major sink of sugars produced by the plant. If a stress event occurs, plants will divert or remobilize sugars from the stalk and roots to meet the needs of the developing ear. Often the pathogens that cause stalk rots are opportunistic and take advantage of plants that have been weakened by potential stress events

(drought, flooding, hail, insect damage, foliar disease damage, etc.).



Figure 1. Corn stalk with accelerated plant senescence

Common stalk rots include Anthracnose top dieback or stalk rot, Diplodia stalk rot, charcoal rot, and Gibberella stalk rot. Anthracnose stalk rot is caused by the fungus *Colletotricum graminicola* (the same organism that causes anthracnose leaf blight), but the disease phases are considered to be separate. When stalk rot symptoms appear in the upper canopy first, this is called anthracnose top dieback (Figure 2). Cloudy, warm humid weather after silking can favor this disease. In Diplodia stalk rot, there is no red or pink coloration in the tissue. Black specks (pycnidia) can be observed embedded in the stalk tissue (Figure 3). Diplodia stalk rot is generally caused by *Stenocarpella maydis*, but *Stenocarpella macrospora*, the causal agent of Diplodia leaf streak, can also infect ears and stalks (Figure 4). We have not seen as much Diplodia yet this season. Charcoal rot is caused

by the fungus *Macrophomina phaseolina*, which is the same organism that causes charcoal rot in soybeans. This disease is favored by hot, dry weather, so it may be one that shows up more frequently this season. The fungus moves through the roots and lower stems into the stalk where many small structures called microsclerotia give the inside of the stalk a speckled appearance. Another common stalk rot in our area is Gibberella stalk rot. Affected plants may wilt and have premature loss of green tissue. Plants often lodge at the nodes and there will be reddish-pink discoloration within the stalk (Figure 5). Small black structures (perithecia) can form at the internodes. Unlike the structures associated with Diplodia, these are superficial and can be easily scraped away from the stalk surface (Figure 6). Red root rot is another disease that can look similar. With red root rot, discoloration is usually darker (Figure 7) and any black structures at the base of the plant (pycnidia) will be embedded in the stalk tissue.



Figure 2. Corn plant with anthracnose top dieback



A Koehler, University of Delaware

Figure 3. Diplodia stalk rot with embedded pycnidia in lower stalk tissue



S. maydis

A Koehler, University of Delaware



S. macrospora

A Koehler, University of Delaware

Figure 4. Spores recovered from corn stalks with Diplodia Stalk Rot. *S. maydis* (top) is most commonly associated with Diplodia stalk rot. *S. macrospora* (bottom) causes Diplodia leaf streak, but can also infect stalks and ears



N Gregory, University of Delaware

Figure 5. Pink discoloration in the stalk from Gibberella stalk rot



A Koehler, University of Delaware

Figure 6. Gibberella stalk rot with easily removed black perithecia at the base of the stalk



N Gregory, University of Delaware

Figure 7. Red root rot (*Phoma terrestris*) symptoms on corn roots

When plants are a few weeks from physiological maturity (kernel black layer), stalk rots can be scouted by walking the field in a W pattern and randomly checking stalks with either the pinch or push test. (Aim to check 10-20 plants for every 10-20 acres). For the pinch test, pinch the stalk between the lowest two internodes to see if it can withstand the pressure, if the stalk collapses, it fails. To complete a push test, push the stalk 30 degrees from vertical (around 8 inches) and see how many spring back to upright and how many lodge. In cases where more than 10% of plants are lodging, you may want to consider harvesting at higher moisture and drying grain after harvest to avoid yield loss due to lodging. Since stalk rots are linked to stress, the best management strategies are to reduce stress by planting optimal stand populations, monitoring field moisture (in cases where irrigation is possible), managing insect pests and foliar diseases, and using a balanced nutritional program. Planting hybrids with some level of foliar disease resistance can also help to reduce plant stress and encourage strong stalk development. Current research projects in my lab are also investigating the connection of early season disease issues, such as Pythium root rot, on susceptibility to stalk rots.

Updates on Tar Spot - Alyssa Koehler,
Extension Field Crops Pathologist;
akoehler@udel.edu

We have been monitoring closely for the appearance of tar spot within corn fields. Tar Spot is a foliar disease of corn caused by the fungus *Phyllachora maydis*. It first showed up in northern Illinois and Indiana in 2015 and was found in Lancaster County at the end of the 2020 season and continued to spread to surrounding PA counties in 2021. This season it has been reported again in Lancaster and York counties in PA (Figure 1). Last week the first sighting appeared in Harford County, MD and samples have been sent to the USDA for official confirmation. The fungus produces small, raised, black bumpy lesions that look like specks of tar, giving it the common name of tar spot (Figure 2). These structures known as stroma can be on the upper or lower leaf surface and do not wipe

off the corn leaf. In severe cases, lesions may also be observed on the leaf sheaths, husks, and tassels. While there are many diseases that have the common name of “tar spot”, particularly in ornamental plants, the pathogen that causes tar spot in corn is only known to appear on corn. If you suspect you have Tar Spot, please contact your county Extension Agent or submit a sample to the UD plant diagnostic lab for confirmation.

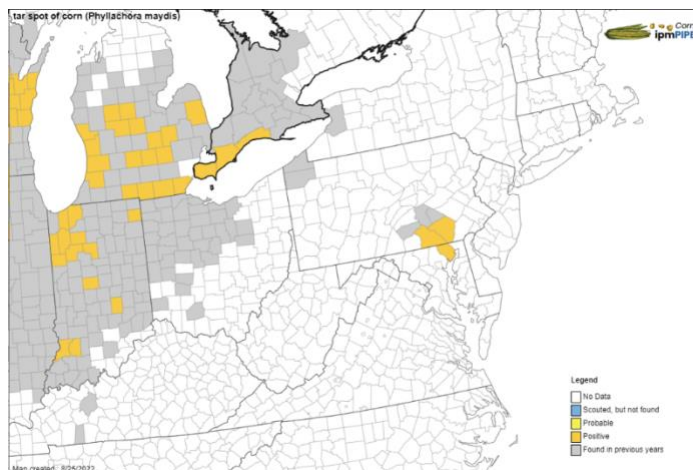


Figure 1. Tar Spot map as of 8/25/22
<https://corn.ipmPIPE.org/tarspot/>

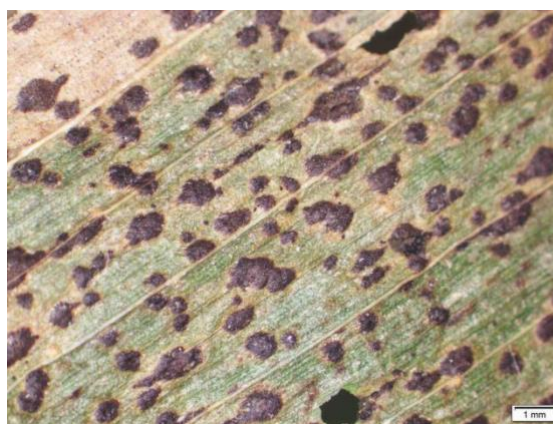


Figure 2. Slightly raised, black stroma of *Phyllachora maydis*
<https://cropprotectionnetwork.org/publications/an-overview-of-tar-spot>

Monthly Grain Market Outlook - Nate Bruce,
Farm Business Management Specialist,
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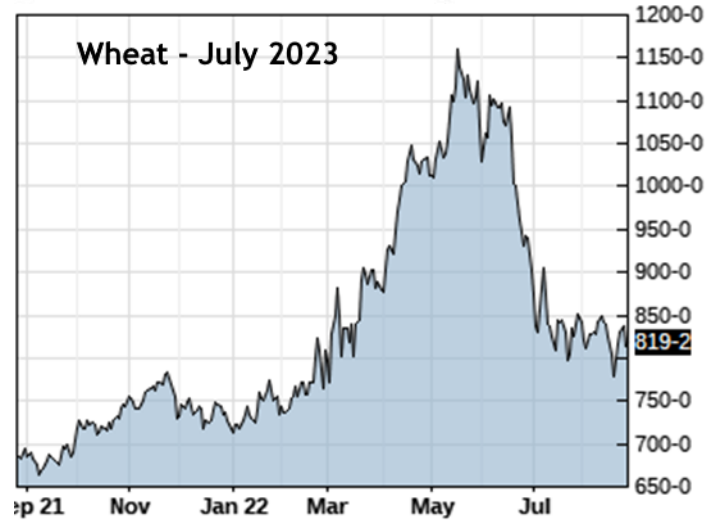
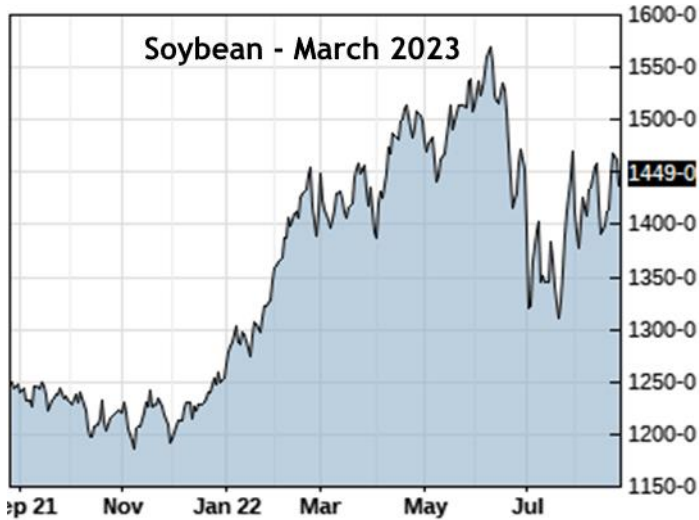
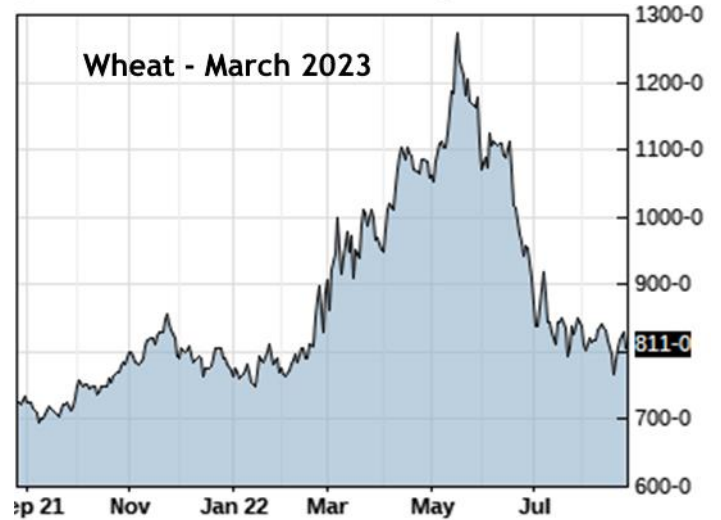
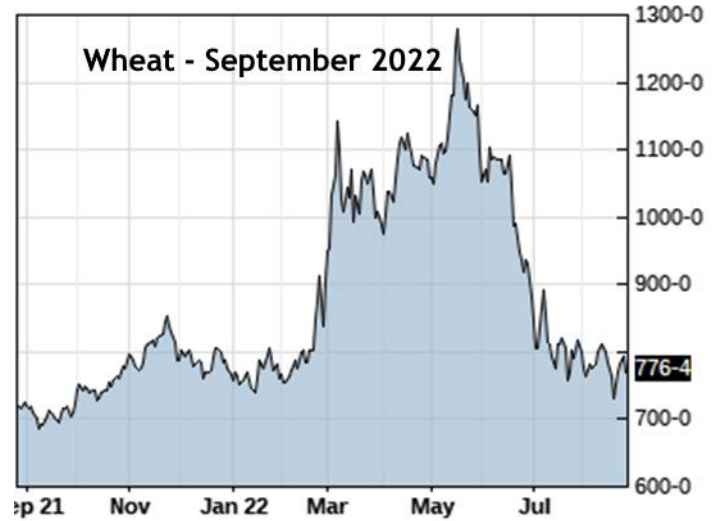
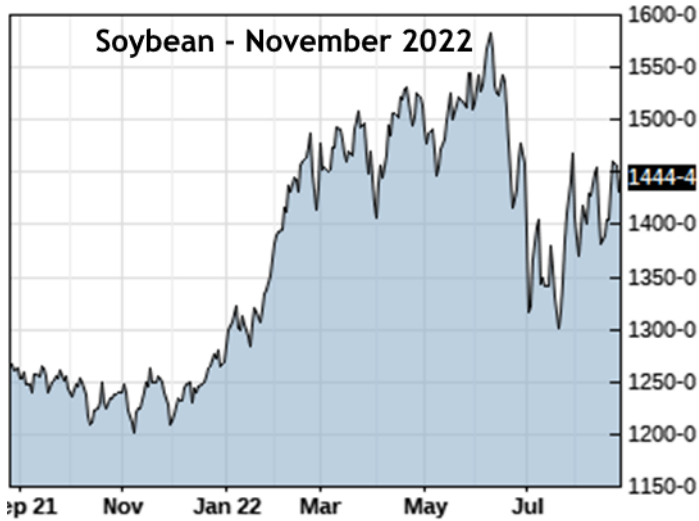
Written 8-25-2022

At the end of every month, I will be writing a grain market outlook and discuss factors influencing the prices of corn, soybeans, and wheat. We saw a tremendous rally in the markets this week starting on Tuesday that has been primarily weather driven as drought has struck vast portions of both the Midwest and the Delmarva peninsula. Uncertainty about carryover is playing into the markets, particularly with corn and wheat. The corn carryover for the current marketing year is estimated at 1.53 billion bushels, up 20 million from July due to ethanol use. New corn ending stocks came out at just under 1.388 billion bushels, down 82 million due to higher feed use and lower production estimates canceling out reduced exports. Old crop soybean ending stocks are at 225 million bushels, 10 million more than a month ago because of lower exports. New crop soybeans are at 245 million bushels, 15 million bushels higher, with a bigger crop production outlook canceling out expectations for improved export demand as well. This is seen particularly in the futures for soybeans. U.S. wheat ending stocks registered at 610 million bushels, 29 million less than July. As of this week, 33 cargo ships have carried grain out of Ukraine. This will be something to watch in the coming weeks especially as the war changes pace. Expect 2022 market volatility to continue into the fall and into 2023. Below are several futures for corn, soybeans, and wheat.



Soybean Futures

Wheat Futures



General

Comment Period on EPA O.P. Petition -

David Owens, Extension Entomologist,
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In July, a petition was logged in the federal register by several groups asking EPA to revoke all food tolerances for all organophosphates, including malathion, Diazinon, Dibrom, Dimethoate, DDVP, Phorate, Terbufos, Orthene and others. EPA has extended the comment period to September 25. Further information, as well as where to submit comments can be found here:

<https://www.federalregister.gov/documents/2022/07/12/2022-14795/petition-to-revoke-tolerances-and-cancel-registrations-for-certain-organophosphate-uses-notice-of>.

Nuffield International Scholarship - USA for a Farmer or Agricultural Professional

\$25,000 Scholarship Travel Bursary for Agricultural Study Abroad

Nuffield International Farming Scholars - USA announces the application period for a \$25,000 Scholarship to support international travel and study in 2023 related to global agriculture is open from July 15 to October 21. **One scholarship is supported by Mid-Atlantic Farm Credit, Delaware Dept. of Agriculture, Mountaire Farms and the Mid-Atlantic Farm Credit Foundation and is dedicated to a farmer or agricultural professional residing and working in Delaware, Maryland, Pennsylvania, and certain counties of Virginia and West Virginia.** Nuffield USA is aligned with Nuffield International, which is a 13-member country organization founded in the UK in 1947. Typically, 60 to 70 scholars participate each year. U.S. applicants must be between 25- and 45-years old and U.S. citizens.

Nuffield International Farming Scholars is a unique global network of farmers, ranchers, and agri-professionals that focuses on: personal capacity building; excellence in agricultural production, distribution and management' and

local, national and global thought leadership. Over 1,700 Nuffield alumni hail from the 13 Nuffield countries.

The Scholarship supports travel and participation in its annual week-long meeting, the Contemporary Scholars Conference (CSC), held in March. In 2023, the CSC will be held in British Columbia, Canada. The next component is the Global Focus Program, a four-week program in which scholars travel in small groups to 4 or 5 countries. Each group consists of scholars from different countries. The final component is the Independent Research Topic, a self-directed 5-week travel program to explore a selected research topic. A 10,000-word report is required at the completion of the program, which is posted on the Nuffield International website.

Three scholarships, sponsored by TIAA, Bayer Crop Sciences, and the Canadian PSP are open to applicants from the United States, Chile and Brazil. Four state-based scholarships are open to residents of California, Iowa, North Carolina and the **Mid-Atlantic states of Delaware, Maryland, Pennsylvania and certain counties of Virginia and West Virginia: Morgan, Berkeley, Jefferson, Frederick, Clarke, Warren, Shenandoah, Page, Hancock, Brooke, Ohio and Marshall.**

Additional information and the application form is available on the Nuffield International website, Nuffieldinternational.org. For specific information regarding the U.S. program, please email Ed Kee, President of Nuffield USA at kee@udel.edu. Or, for Delaware perspective, please email our Delaware-based scholars, Georgie Cartanza (2017) at cartanzachick@comcast.net or Susan Truehart Garey (2019) at truehart@udel.edu.

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>

Sweet Corn Field Day & Plot Tour

Tuesday, September 13, 2022 4:45 p.m.
Carvel Research & Education Center
16483 County Seat Hwy, Georgetown, DE

Save the date for a sweet corn focused meeting on September 13. Look for a detailed agenda in next

week's WCU. Pest management CEU's will be provided. The large sweet corn pest management trials should be harvestable September 9 and still be tender so attendees will have the chance to walk through plots and take sweet corn home!

A Day in the Garden Open House

Saturday, September 17 10:00 a.m.–2:00 p.m.
Carvel Center Demonstration Garden
16483 County Seat Hwy.
Georgetown, DE 19947

Join Sussex Master Gardeners for a tour of their demonstration garden! Attend workshops, enjoy the Peter Rabbit puppet show, go on a scavenger hunt, visit a variety of small fruit and lima bean research plots, and shop the Plant & Book Sale!

Register here: <https://www.pcsreg.com/garden> or by calling 302-856-7303.

Small Fruit and Pole Lima Tours

Saturday, September 17, 2022
11:00 a.m. (Fruit), 1:00 p.m. (Lima)
Carvel Research & Education Center
16483 County Seat Hwy.
Georgetown, DE 19947

Tour of Small Fruit Demonstration Plot

11:00 a.m. (meet in grove to walk to fruit demo)

See several varieties of various small fruit crops planted in spring of 2021: blueberry, red raspberry, blackberry, grape, black raspberry, hardy kiwi, elderberry, honeyberry, currant, gooseberry, and aronia. Variety selection, trellising, pruning, training and irrigation will be discussed.

Tour of Pole Lima Research Plot

1:00 p.m. (meet in grove to walk to pole lima plot)

See pole lima trial where varieties in development are being tested. Learn about pole lima pests, diseases and response to heat stress. Discuss recommended production practices.

These tours are a part of the Master Gardener Day in the Garden Open House. Register here: <https://www.pcsreg.com/garden> or by calling 302-856-7303.

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/>.

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"

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.

Agricultural Land Preservation Program

Tuesday, September 20, 2022 6:00-8:00 p.m.

University of Delaware

Carvel Research & Education Center

16483 County Seat Hwy, Georgetown, DE

Delaware's Farmland Preservation Program received \$20 million for farm preservation this year, the highest state funding in the program's history. New applications must be received by October 31, 2022 to be eligible for this funding. This program will explain how the Delaware Department of Agriculture's Farmland Preservation program works and discuss the tax implications of preserving farmland. Light dinner will be provided to registrants. Space is limited.

To register, please contact Karen Adams.

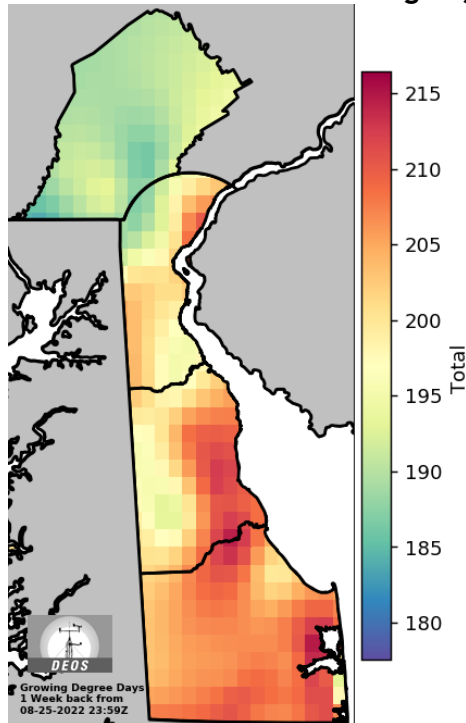
E: adams@udel.edu

P: 302-856-2585 ext 540

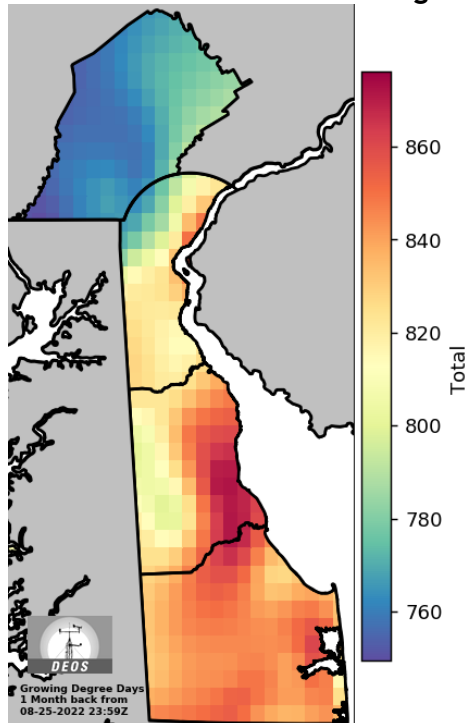
Please contact Nate Bruce nsbruce@udel.edu with any questions.

Weather Summary

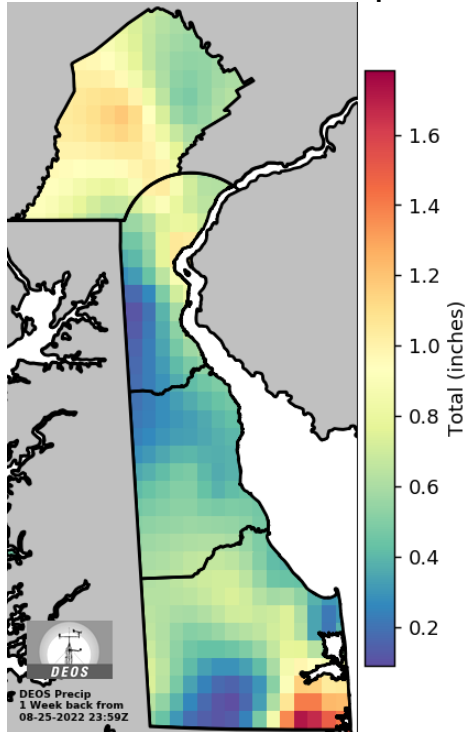
1 Week Accumulated Growing Degree Days



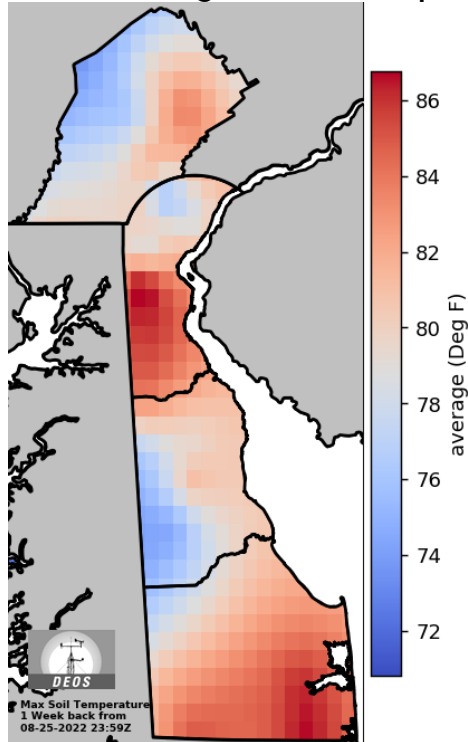
1 Month Accumulated Growing Degree Days



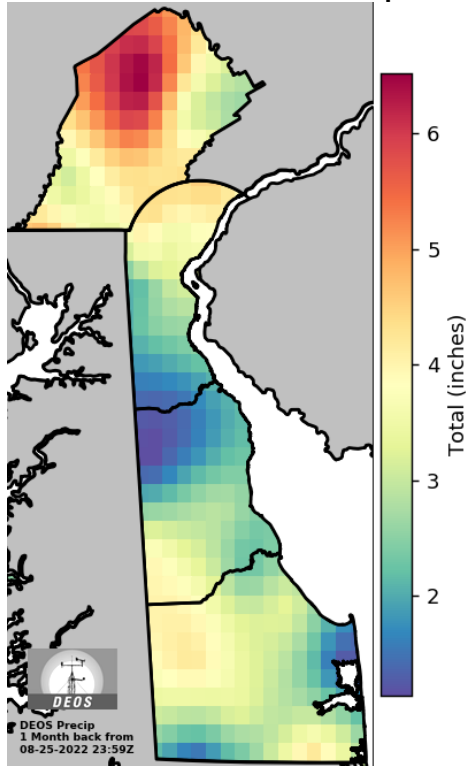
1 Week Accumulated Precipitation



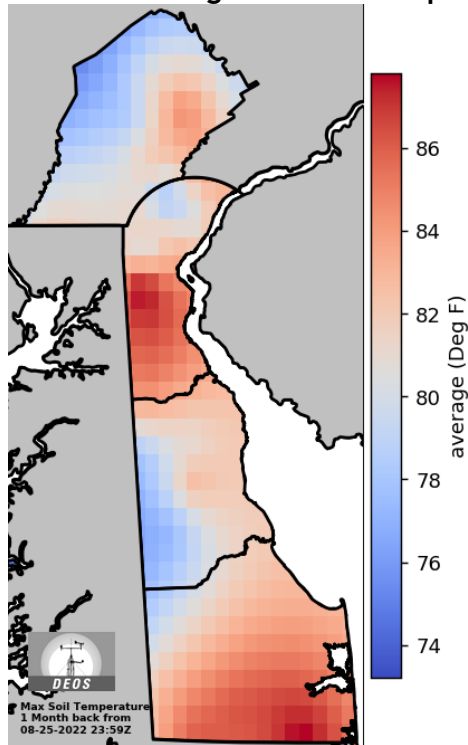
1 Week Average Max Soil Temperature



1 Month Accumulated Precipitation



1 Month Average Max Soil Temperature



These weather maps are generated from DEOS weather station data and are part of a new Ag Weather website that is under development. Your feedback is welcome!

Thanks!! Emmalea (emmalea@udel.edu)

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

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