

WEEKLY CROP UPDATE



UNIVERSITY OF DELAWARE
COOPERATIVE
EXTENSION

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Vegetable Crops

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

Greenhouses

Scout greenhouses now for aphids and spider mites on transplants. Aphids can be easily controlled with tray drenches of a neonicotinoid. A tray drench should also prevent cucumber beetle damage on transplant wagons but tray drenches have limited residual activity once the transplants are planted and growing. Be sure to read the labels carefully to ensure that you have enough active ingredient left for a cucumber beetle application in the drip lines if needs be next month. For greenhouses with spider mite activity, the easiest time to treat the transplants is while on the transplant wagon.

Asparagus

Asparagus beetle activity is increasing. Check both field edges and field interiors. On a recent field visit, 14% of asparagus spears had a beetle present and 4% of spears had eggs present along the field edge bordering a road and an overwintering habitat, while just another 100 feet into the field the infestation % dropped off significantly. Eggs look like small dark cylinders sticking out of the spear at a 90 degree angle (Figure 1). Thresholds from Michigan State University suggest a lower threshold than previously reported; 5% of spears with adults and 2% of spears with eggs. Labeled materials include carbaryl, (pay attention to rates pre-harvest) malathion, pyganic (OMRI) and permethrin.



D Owens, University of Delaware

Figure 1. Asparagus beetle eggs on an asparagus spear.

Cole Crops

Diamond back moth is now active in addition to imported cabbageworm. Thresholds at this stage are fairly high at 20% infested seedlings of any caterpillar pest. If at all possible, avoid broad spectrum insecticides so as to conserve beneficial wasps as much as possible. Last year, we installed a cabbage plot where a parasitoid wiped out every single diamondback caterpillar early in the crop stage thus keeping even untreated plots clean at harvest. If using Bt, coverage is especially important. Bt can be quite effective on smaller plants when targeting smaller worms. Bt aizawai strains tend to be a bit more effective than kurstaki strains. Other cole crop pests active right now include flea beetles (seen primarily in brassica cover crop). If

flea beetles and worms are present, diamides and spinosyns are effective on both among the more 'narrow spectrum' materials and Torac is also quite effective but a bit more broad spectrum.

Seedcorn Maggot

Last week, Jerry Brust had an excellent column on seedcorn maggot. Looking ahead at the forecast, there is a chance of rain this weekend followed by cooler temperatures and possibly more rain by the end of the week coming. These conditions will increase the risk for seedcorn maggot injury. Consider a neonic seed treatment and for any recently transplanted vegetables onto plastic, examine plant holes for adult fly activity. Adult activity is an indicator of egg laying. While there are no rescue treatments available once maggots begin working on the roots and stems below ground, it may be possible to suppress them by running insecticide through the drip lines, provided the maggots have not begun damaging and entering the stems. Such an application might still provide residual control for when cucumber beetle becomes active (usually between the 2nd and 3rd week of May, but probably will be sooner this year).

Potato and Tomato

Scout for Colorado potato beetle on new potatoes and high tunnel tomato or egg plants for which the sides were rolled up during last week's heat. It has been warm enough several days over the previous couple of weeks for beetles to fly and disperse long distances.

Peas

Aphids are beginning to fly into pea fields now. If a field has experienced prior SCM stress, pay attention to water and fertility regimens to reduce stress on the plants as much as possible.

Sweet Corn

The 1971 season marked the beginning of the University of Delaware IPM program. This week, pheromone and black light traps were deployed once again for monitoring various pests including corn earworm, European corn borer, and the stink bug complex. This year, we were able to locate our initial set of traps near more sweet corn fields than in previous years. Many thanks to hosting farmers and to Richard Monaco for

supporting and servicing the trap network. Trap counts will be submitted in the WCU beginning in early June.

Linear Bed Foot Method for Determining Fertilizer Needs for Vegetable Crops on Plastic Mulch -Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu

In the Mid-Atlantic Commercial Vegetable Production Recommendations, fertilizer recommendations are given on a per acre basis. For crops grown on plastic mulch, the most common bed spacing between rows is used and recommendations are based on linear bed foot (LBF) values.

The LBF system can be used to express fertilizer rates for any fertilizer delivery method with mulched beds, including production systems using bed placed fertilizers. In the production systems that rely on the drip irrigation system to deliver water and fertilizers, the LBF fits closely because growers already know the total length of drip tubing in an acre. LBF can also take into account areas for drive rows used for sprayers such as in watermelons or cantaloupes.

The following are LBF values that fertilizer recommendations are based on in the Mid-Atlantic on plastic mulch:

Cucumbers: 7,260 linear bed ft./acre (6-foot bed spacing, 2 rows per bed)

Eggplant: 7,260 linear bed ft./acre (6-foot bed spacing, one row per bed)

Muskmelons and Mixed Melons: 7,260 linear bed ft./acre (6-foot bed spacing, 1 row per bed)

Peppers: 7,260 linear bed ft./acre (6-foot bed spacing, 2 rows per bed)

Summer Squash: 7,260 linear bed ft./acre (6-foot bed spacing, 2 rows per bed)

Tomatoes: 7,260 linear bed ft./acre (6-foot bed spacing, one row per bed)

Watermelons: 6,222 linear bed ft./acre (7-foot bed spacing, one row per bed)

If bed widths are different then adjustments should be made to fertilization rates and if unplanted drive rows are used then rates per acre will also be reduced.

To make these adjustments you need to know the following:

Real-estate acre: Farm land (land area) that occupies 43,560 square feet. This term also may be called “gross acre” and refers to the land area used for crop production, including the cropped land plus the land used for drive rows, field rows roads and drainage ditches.

Cropped area: The portion of the real-estate acre used solely for crop production. Alternatively, the cropped area is the land remaining after uncropped land, such as drive or access roads, have been subtracted from the real-estate area. If the entire area is used for crop production, then the cropped area is equal to the real-estate area. Otherwise, the cropped area is less than the real-estate area.

Some watermelon examples:

1) Crop is grown on 8-foot bed centers, not 7-foot: Total bed feet would be $43,560/8$ or 5,445 LBF.

Fertilizer would be reduced by 6,222-5,445= $777/6,222 = 12.5\%$ so if the recommendation is 125 lbs of N per acre you would reduce that by 16 lbs (109 lbs N per acre).

2. A drive row is placed after every 8 beds on 7 foot centers. The cropped area is $8/9$ or 89%. So the LBF would be 11% less. If the recommendation is 125 lbs/acre N, then the actual amount applied would be 0.89×125 or 111 lbs of N per acre.

For more information on Linear Bed Foot for fertilizer recommendations go to this University of Florida fact sheet:
<https://edis.ifas.ufl.edu/pdf/files/ss/ss51600.pdf>

Much of the information used in this article was taken from this publication.

Potato Tuber Physiological Age, Sprouting and Emergence -Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu

I have received questions in the past about variable potato sprouting in the field. While field and planting conditions, soil temperatures, seed piece handling all have an effect, another factor is seed age.

Potato tuber physiological age will determine seed piece sprouting. The physiological age is affected by harvest conditions, calendar (chronological) age, and storage conditions.

During seed tuber storage, the main influence on physiological aging is temperature. Higher storage temperatures cause greater physiological aging, colder storage keeps seed potatoes in a young stage.

In general seed potatoes can be divided into old and young physiological groups. Physiologically older aged seed emerges earlier, grows faster, yields higher early, and yields less later than physiologically young unaged seed. Physiologically young seed has more vigor, produces higher yields of larger tubers than old seed and is ideal under long production seasons.

To age seed, store at 38°F then before planting store for 2 to 6 weeks at 55-60°F. To hold young seed, store at 38°F and warm to 45°F just before cutting and plant in soil about the same temperature as the tubers.

Field Characteristics of Physiologically Young and Old Seed

Characteristic	Young Seed	Old Seed
Emergence	slower	faster
Stand	greater	lesser
Early Vigor	greater	lesser
Foliage	more	less
Stems/Plant	less	more
Tuber Formation	later	earlier
Formation Period	longer	more uniform
Tuber Number	less	more
Tuber Bulking	longer	shorter
Tuber Sizing	larger	smaller
Senescence	later	sooner
Early Harvest Yield	lower	greater
Late Harvest Yield	greater	lower

When large tubers are desired, young seed that produce few sprouts should be considered. For early fresh market, older seed may be more desirable to get a higher yield early and a quicker vine senescence. Older seed also may be more desirable where a smaller tuber is sought.

Fruit Crops

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

Peaches

Plum curculio is active right now. New Jersey is reporting a bit less plum curculio activity than usual so far this year but expect that to change as we head into a cooler period. Imidan and Actara are both very effective on plum curculio per Dr. Anne Nielsen, and I suspect that Actara might also have some efficacy on scale crawlers although it is not labeled for such. Crawler emergence is typically in May, so the timing might not be appropriate. There is an excellent review on plum curculio management as an open access article here: [Review of the Biology, Ecology, and Management of Plum Curculio \(Coleoptera: Curculionidae\) | Journal of Integrated Pest Management | Oxford Academic \(oup.com\)](#).

Strawberry

Continue scouting for tarnished plant bug and two spotted spider mites.

Siting Fruit Plantings - Gordon Johnson,
Extension Vegetable & Fruit Specialist;
gjohn@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.

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 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 4-5 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.

Another issue with fruit siting is air drainage. Our last 2 winters have had 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 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.

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

Agronomic Crops

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

Small Grains

Armyworm larvae were intercepted in low numbers this week by consultants. Thresholds are fairly high, 1-2 per square foot. Be sure to also examine residue if scouting during the day, as caterpillars like to hide.

Soybean

Please see the note in the vegetable scouting section on seedcorn maggot. It is possible that we will have an elevated seedcorn maggot activity period coming up this week. Soybeans planted into tilled fields, especially those with a cover crop and/or manure should have an insecticidal seed treatment on them. Pay

attention this week to emerging soybean in no-till conditions for signs of slug damage. Soybean stands can get thinned out quite a bit before soybean begins losing yield. It is also very difficult to time a bait application. Often times, once plants begin to emerge, slugs may have done enough damage to render that application a revenge only type of situation. Slug bait is most effective when applied following wet weather but with dry weather afterwards.

Alfalfa

There are still some alfalfa fields above weevil threshold. Be sure to measure alfalfa as it may be approaching a height for which early cutting may be an option. If cutting and baling, be sure to scout the regrowth to make sure that alfalfa weevil is not working on it. Please note that chlorantraniliprole is ineffective on weevil larvae, thus Besiege provides no additional benefit over a lambda-cyhalothrin alone product such as Warrior II or generics. Please also note that as alfalfa continues growing, thresholds drift up a bit.

Early Season Moth Activity

Many thanks to Haley Sater with UMD Cooperative Extension and Joanne Whalen, Extension entomologist emeritus extraordinaire for assistance with checking traps. Moth counts were a bit lower this week, but still catching fair numbers of black cutworm and high numbers of true armyworm in Smyrna.

Location	# of Nights	Total Catch	
		TAW	BCW
Willards, MD	6	3	21
Salisbury, MD	4 (Apr 10)	3	2
Seaford, DE	8	12	16
Sudlersville, MD	7	8	4
Harrington, DE	8	132	8
Smyrna, DE	7	461	27
Middletown, DE	7	15	---

Fusarium Head Blight and Dry Conditions-

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

Heading in barley is underway and wheat is entering the boot stage. Overall it has been a

dry April which has kept us at low risk in the Fusarium Risk Tool (Figure 1).

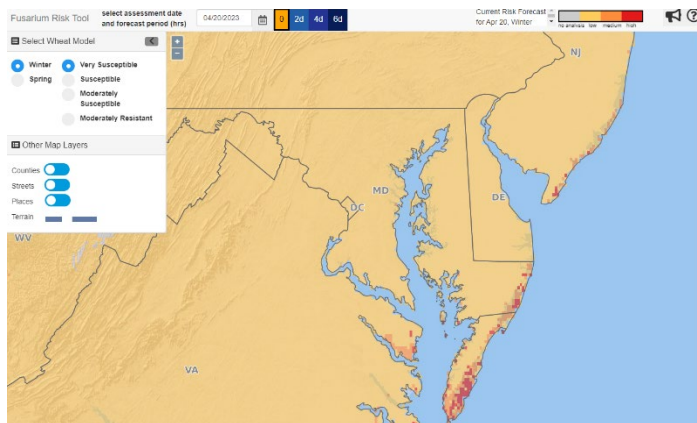


Figure 1. FHB Risk Model for April 20, 2023 (wheatcab.psu.edu)

Due to it being so dry, a lot of pivots have been running. It is important to remember that irrigation can impact Fusarium Head Blight risk by creating a humid, warm environment in the canopy to favor development and spread of FHB just like a rainy spring would. While you want to meet the crops water requirements, irrigation timing can be managed by staying aware of when flowering begins and ends. Irrigate to fill the root zone prior to flowering and, if possible, avoid irrigation during flowering. After flowering, irrigation can resume if dry weather persists. Barley starts flowering prior to heading (Figure 2), while wheat usually starts to flower 3-4 days after heading out (Figure 3).

If you are planning for wheat fungicide application, scout frequently and apply when wheat is flowering (Feekes 10.5.1). Weather can impact how many days from when heads become visible until flowering actually begins. If weather continues to be warm, we may have shorter windows this season. Look for yellow anthers in the center of the wheat head to signal the start of flowering (Figure 3). Once wheat is flowering, fungicides are most effective when applied within 4-5 day days. For best mycotoxin (DON) control, it is better to be at flowering or a few days beyond than to spray too early when heads are not out yet. Anthers can remain attached after flowering, but become pale white. Fungicide products should be applied at the manufacturers recommended rate with nozzles angled 30-45° from horizontal (30 degrees is better than 45). Nozzles angled both forward

and backward or twinjet nozzles that spray in two directions give better contact with the head and increase fungicide efficacy. For ground sprays, fungicides should be applied in at least 10-15 gallons of water per acre; aerial applications are recommended at 5 gallons per acre.



Figure 2. Anthers visible on emerging barley head



A Koehler, University of Delaware

Figure 3. Wheat at flowering (Feekes 10.5.1) with yellow anthers visible 3-4 days after heads emerge

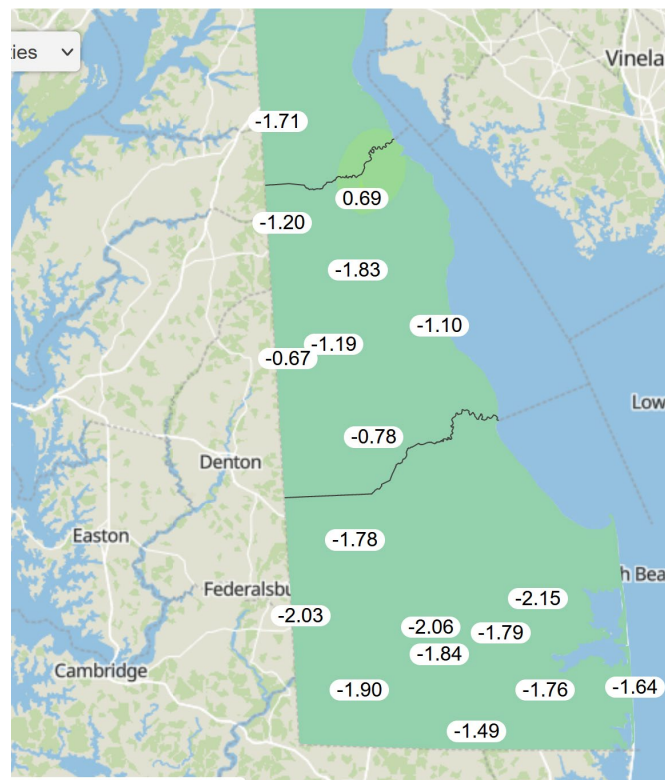
Irrigation Recommendations for Small Grains & Covers - James Adkins, Extension Irrigation Engineer, adkins@udel.edu

Wheat

The unusually warm spring and lack of rainfall has depleted our soil moisture levels to the point that small grains should be irrigated to prevent limiting vegetative growth. The map above shows the 2-week evapotranspiration rate minus any precipitation received over the same period. Keep in mind the $\frac{3}{4}$ of the of the moisture deficit accrued just this week. The current moisture deficit values in Sussex are currently below the **TOTAL** moisture holding capacity of loamy sand soils causing significant plant stress.

A UD study conducted in 2013-2015 showed the critical time to irrigate wheat was just before flowering with little economic return outside of the that period. However, none of the study years were subjected to the significant early dry spell we are currently experiencing. The average cost to apply 1 acre inch (\$4/acre*in) is

currently \$1.83 less than the July contract wheat price so a 1 bushel increase in yield will more than cover the cost of two 1/2" irrigation applications. If we do not receive any appreciable rainfall out of Saturdays forecast, pivots should be running immediately.



Evapotranspiration minus precipitation in inches.
(April 5-April 19, 2023)

Barley

I am unaware of any regional data to support the irrigation of barley, however those with malting and high value contracts should consider irrigating similarly to wheat. Barley tends to be more drought tolerant than wheat, but we are quickly approaching critical levels that barring rainfall this weekend will need irrigating soon.

Cover Crops

Much like small grains, vetch and clover are starting to suffer from lack of moisture particularly in sandy soils. While irrigating legumes has the potential to increase the total nitrogen fixed the effect of moisture levels on nitrogen credit is unquantified. The current price of commercial nitrogen does not justify irrigation of covers solely for the N credit.

2023 USDA Prospective Planting Report
Predicts Increase in Corn Acreage in
Delmarva - Nate Bruce, Farm Business
Management Specialist, nsbruce@udel.edu

Last year, producers nationally planted less corn and more soybeans because of high input costs. The USDA Prospective Planting report predicts producers will increase corn production nationally in 2023 by 4% and soybean acreage will be unchanged. Below is a chart that shows corn and planted soybean acreage nationally given within the report:

USDA estimates for all the Mid-Atlantic states is higher for corn in 2023 compared to 2022. Soybean acreage in the Mid-Atlantic is predicted to vary from state to state. The prediction for corn and soybean for each Mid-Atlantic state is given below:

Corn Acreage

- Delaware - Up 3%
- Maryland - Up 5%
- New Jersey - Up 12%
- Pennsylvania - Up 11%
- Virginia - Up 20%
- Mid-Atlantic Average - Up 10.2%

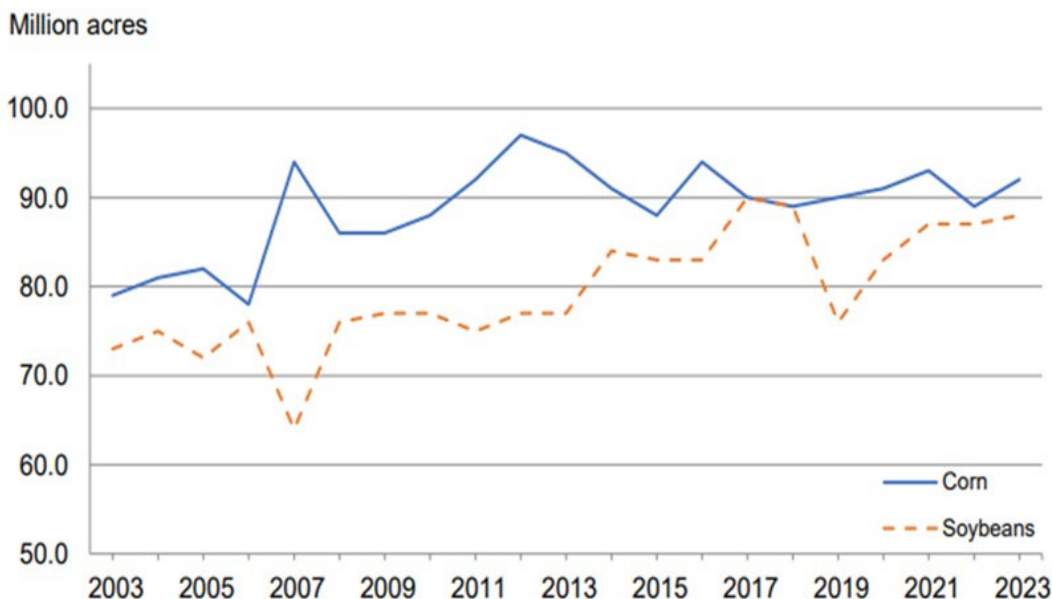
Soybean Acreage

- Delaware - Down 6%
- Maryland - Up 2%
- New Jersey - Down 9%
- Pennsylvania - Down 2%
- Virginia - Down 6%
- Mid-Atlantic Average - Down 4.2%

The Mid-Atlantic region is predicted to have greater corn acreage planted in 2023 compared to the national average. Soybean acreage in the Mid-Atlantic is expected to be less than the national average. This might reflect multiple factors that producers in the region face versus those nationally. It will be interesting to see what happens this year in our region.

Here is a [link to the complete report](#).

Corn and Soybean Planted Acreage - United States



Source: 2023 USDA Prospective Planting Report

General

Lack of Rain Can Reduce Soil-Applied Herbicide Effectiveness - Mark VanGessel, *Extension Weed Specialist*; mjv@udel.edu

Some areas have not received rainfall in two or more weeks and I have been asked what to expect from soil-applied herbicides that have been applied during that time.

There are a number of factors going on that will influence the results. First, although we lack the rain to move these herbicides into the soil, there is enough soil moisture for the weeds to germinate and emerge.

The effectiveness of soil applied herbicides (such as s-metolachlor [Dual Magnum], acetochlor [Harness], or pendimethalin [Prowl]) sitting on the soil surface is greatly reduced compared to herbicides moved into the soil by rain, irrigation, or mechanically incorporated. These types of herbicides are taken into the weed seedlings as they germinate and start to emerge from the soil; absorbed by the seedlings' roots and/or shoots. Therefore, once the weeds have emerged, these herbicides are not able to control them. Most of these herbicide labels state that lack of rainfall or irrigation within 7 days after application will result in reduced weed control.

Atrazine applied to the soil surface is absorbed by the root of the weeds. Under these dry conditions, atrazine-susceptible weeds may take up the herbicide after emergence if atrazine is moved into the root zone by rainfall or irrigation and provide good control. Weeds with large seeds are capable of emerging deeper in the soil, may escape control if the rainfall is not sufficient to move the herbicide down to the roots.

Thus, many of these emerged weeds will not be controlled by the soil-applied herbicides. Keep an eye on these fields since they may need follow-up treatment sooner than you typically treat. If you are applying herbicides during a dry spell and have access to irrigation, running the irrigation within a week of application will move

that herbicide into the soil and maximize their effectiveness.

Guess the Pest! April 14 Answer: Barley Yellow Dwarf Virus - David Owens, *Extension Entomologist*, owensd@udel.edu

Congratulations to Greg Dempsey for correctly identifying this issue as barley yellow dwarf virus. BYDV has been much more prevalent this year than usual, and especially so in malting barley fields. There is an excellent writeup of BYDV put together by researchers in the Southeast a number of years ago: <https://entomology.ca.uky.edu/files/efpdf1/ef150.pdf>. This field also had Pythium damage in root system. At this point, we do not know which disease started first. It is important to keep plants well irrigated and fertilized to reduce the stress impact on the plants.



Guess the Pest! April 21 - David Owens, *Extension Entomologist*, owensd@udel.edu

This time of year you might happen to be outside and notice a mass of insects flying and landing on equipment or some other place on your farm. What is going on here?



This year, Guess the Pest participants will be entered into an end of season sweep net drawing (as well as other potential items). To enter a guess, click on the Guess The Pest Logo or visit: <http://www.udel.edu/008255>

Announcements

Free Safety Training for Farmworkers

Telamon is offering safety training programs for farmworkers. All the trainings are offered in English and Spanish, and by request can be provided in Haitian Creole and French. The trainings are provided at no cost to the employer.

If you are interested in any of the free trainings listed below for workers on your farm, please contact:

Cheryl Redd

credd@telamon.org

Cell (304) 960-6691

Worker Protection Standard

This satisfies the yearly training requirement of the worker protection standard – a pesticide safety training required by the EPA at agricultural establishments for workers that work in the field where pesticides have been used or will be used during their employment. All instructors have at least a Train the Trainer Certificate from PERC, approval number: EPA WPS TTT W/H 00030.

Heat Stress Prevention

This is an OSHA approved training that teaches workers how to recognize the symptoms of heat-related illness, including heat exhaustion and heat stroke. It teaches what to do to prevent injury, and how to treat someone suffering from heat stroke while waiting for emergency medical help.

Limiting Exposures Around Families

This training is intended for families, or spouses of farmworkers and explains how to protect yourself or family from pesticides in the environment including clothing of a farmworker, or residues that reach the home from spraying by a nearby farm.

José Learns About Pesticides

This presentation is for children and teaches them how to protect themselves from pesticides that may be near the home or on the clothing of their parents who work on a farm. It teaches them to not touch clothing that may be contaminated, not to play with pesticide containers, and to not enter a field when pesticides are being applied or have a “No Entry” sign displayed.

2023 Chrysanthemum Seminar

Tuesday May 9, 2023 2:00-5:00 p.m.
Delaware Department of Agriculture
2320 S. DuPont Hwy
Dover, DE 19901

This first time workshop is a great opportunity for new and established growers of chrysanthemums.

Agenda

2:00 – 2:10

Welcome and DE Department of Ag Regulations, Inspections, Licensing

Jeff Brothers, DE Department of Ag

2:10 – 3:00

Mum Production Practices

Nick Flax, Ball Seed Company

Producing high-quality garden mums boils down to a few key factors: healthy inputs, appropriate crop scheduling, and diligent management of crop culture to combat in-season challenges. This presentation will cover start-to-finish production considerations, including: input selection, growing-media concerns, pinching, watering and fertility management, natural-season vs. black-cloth production, and benchmarking your mums' progress using a start-to-finish growth management approach.

3:00 – 3:50

Chrysanthemum diseases and disease management

Jill Pollok and Morgan Oliver, University of Delaware

Common chrysanthemum diseases we see in the UD Plant Diagnostic Clinic, which diseases to be on the lookout for, and how to prevent and manage chrysanthemum diseases.

4:00 – 4:50

Chrysanthemum pests and integrated pest management

Brian Kunkel, University of Delaware

Common chrysanthemum pests and integrated pest management practices for mum production.

Cost is \$15 (pay at the door with cash or check)

2 pesticide credits to DE for 03 Ornamental & Turf

2 pesticide credits to PA for core or private applicators

[Register Online](#) or call (302) 698-4500

DE & MD Corn Growers Invited to Participate in On-Farm Trials

Maryland Grain Producers and Utilization Board is funding three different on-farm research trials for the 2023 season:

1. Corn response to sidedress N rates
2. Biological product evaluation
3. Corn response to potassium

Delaware growers are invited and encouraged to participate. If you would like to participate in one of these trials, please contact Dr. Nicole Fiorellino at 443-446-4275 or at nfiorell@umd.edu.

Learn more on the MG PUB website -

<http://marylandgrain.org/.../on-farm-research-real-time.../>

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

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