

Volume 28, Issue 17

Vegetable Crops

Vegetable Crop Insect Scouting - David

Owens, Extension Entomologist, owensd@udel.edu

Snap Beans and Lima Beans

Scout for potato leafhopper. Sprays are justified if you capture 5 adults or nymphs per sweep. Look very carefully at the bottom of your net, early instar leafhoppers are about the size of a thrips and pale. Good leafhopper materials include Lannate, Dimethoate, pyrethroids, neonics and Sivanto.

Eggplant

Be sure to scout for Colorado potato beetle and spider mites, both of which cause significant injury in a short period of time. Thresholds for a related spider mite species in Southeast Asia are reported as 4-8 per leaf. Should a spray be necessary, we have a bevy of materials for both pest groups. Abamectin will control both, as will premixes containing a diamide like Minecto Pro.

Sweet Corn

We have entered our 'July lull' in earworm activity. Counts are lower than they were last week at this time. I expect this period of lower activity to last another 2 weeks. We were not able to run any moths in our vials this week. Thresholds and current trap catch can be found here:

https://www.udel.edu/academics/colleges/canr/ /cooperative-extension/sustainableproduction/pest-management/insect-trapping/. Counts from Thursday are as follows:

July 10, 2020

Tran		Dhoromono
Trap	BLI - CEW	Pheromone
Location		CEW
	3 nights total catch	
Dover	0	20
Harrington	0	19
Milford	0	2
Rising Sun	0	32
Wyoming	0	6
Bridgeville	0	8
Concord	0	10
Georgetown	0	7
Greenwood	0	
Laurel	1	48
Seaford	0	4
Lewes	0	2
Harbeson		0

Watermelon

Hot dry weather continues favoring mites. Fields that were treated early for mites that came in with transplants seem to have largely controlled those mites, but we are seeing more mites moving in from field margins. If you have powdery mildew, Magister has powdery activity. It is a contact miticide. Be sure to read labels carefully, as many miticides are very limited in terms of number of applications per season.

First generation cucumber beetles are emerging out of the soil quickly. Beetles will often concentrate in flowers and can be easy to spot in them. Unfortunately, there are no established thresholds for beetles once fruit is present. Leps such as cabbage looper and leafroller are beginning to show up in many fields. There are two premixes available for mites and beetles or mites and leps (Gladiator and Minecto Pro), but both contain Abamectin which is very toxic to bees. Read the labels carefully! Assail does a very good job on beetles and has a long residual activity. Diamides do a good job but are primarily worm products, they stop beetles from feeding on treated foliage about week, but once beetles get onto new or fresh foliage or flowers that do not have the material on them, they will resume feeding. Some folks report inconsistent control with pyrethroids, probably due to the relatively long beetle emergence window and the short residual activity of this class.

Cucurbits

Scout for squash bug and squash vine borer. You want to wait until squash bug eggs hatch before triggering a spray. They can be controlled with pretty low rates of bifenthrin (per VT testing), and I suspect just about all of the pyrethroids will do a good job. Squash vine borer moths are dayflying moths that lay single eggs on the vine, petioles, and sometimes on the underside of leaves. You may see at the base of leaf petioles a small mound of white frass. This is a sure sign that squash vine borer has already started invading the plant. Small caterpillars can be cut out. Once surgically removed, push some soil over the node and the vine will send out adventitious roots. Some folks have reported some success with injecting Bt into the tunnel site, but I don't know if anyone has rigorously tested this. If caught early, begin treating vines about once per week with a pyrethroid, preferably in the afternoon after blossoms close for the day to avoid harming bees.

Flooding, Waterlogged Soils and Effects on Vegetables with Special Consideration for Plasticulture Vegetables- Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu

Climate scientists predict that extreme weather events will become more common on Delmarva over the next several decades. This will present additional challenges for vegetable growers related to flooding, wet weather diseases, nutrient losses, ability to do timely harvests, field compaction, other wet soil issues, and resulting crop losses.

In flooded soils, the oxygen concentration drops to near zero within 24 hours because water replaces most of the air in the soil pore space. Oxygen diffuses much more slowly in water filled pores than in open pores. Roots need oxygen to respire and have normal cell activity. When any remaining oxygen is used up by the roots in flooded or waterlogged soils, they will cease to function normally. Therefore, mineral nutrient uptake and water uptake are reduced or stopped in flooded conditions (plants will often wilt in flooded conditions because roots have shut down). There is also a buildup of ethylene in flooded soils, the plant hormone that in excess amounts can cause leaf drop and premature senescence.

In general, if flooding or waterlogging lasts for less than 48 hours, most vegetable crops can recover. Longer periods will lead to high amounts of root death and lower chances of recovery.

While there has been limited research on flooding effects on vegetables, the following are some physiological effects that have been documented:

- Oxygen starvation to vegetable roots will cause roots to cease to function resulting in plant collapse with limited recovery potential
- Oxygen starvation in root crops such as potatoes will lead to cell death in tubers and storage roots. This will appear as dark or discolored areas in the tubers or roots. In carrots and other crops where the tap root is harvested, the tap root will often die leading to the formation of unmarketable fibrous roots.
- Ethylene buildup in saturated soil conditions can cause leaf drop, flower drop, fruit drop, or early plant decline in many vegetable crops.
- Leaching and denitrification losses of nitrogen and limited nitrogen uptake in flooded soils will lead to nitrogen deficiencies across most vegetable crops.

- In bean crops, flooding or waterlogging has shown to decrease flower production and increase flower and young fruit abscission or abortion.
- Lack of root function and movement of water and calcium in the plant can lead to calcium related disorders in plants. There is a potential for higher incidence of blossom end rot in tomatoes, peppers, watermelons, and other susceptible crops when fruits are forming and soils are saturated.

Low lying areas of fields are most affected by excess rainfall. However, cropping practices can also increase water standing. In vegetables, field compaction will reduce water infiltration leading to increased crop losses in wet weather.

Plasticulture Concerns in Wet Weather In plasticulture, water can accumulate and persist between rows of plastic mulch because of the impervious surface of the mulch. Because much of the rainfall runs off the plastic, water pooling can be serious problem in plastic mulched fields, especially where row middles have become compacted. Vining crops that fruit into the row middles can have vines and fruits sitting in water and this produces ideal conditions for diseases of wet conditions to develop. A prime example is *Phytophthora capsici* (a water mold) that needs saturated soils or standing water to infect plants (fruits).

When water overflows the bed tops of plastic mulched crops, whole beds become saturated as water enters the planting holes. This often leads to plant losses as beds take a very long time to dry once saturated in this way and oxygen is very limited in the root zone.

To avoid water accumulation between plastic mulched beds, tilling with a deep shank or a subsoiler in row middles can help improve drainage. Cut drainage channels at row ends to reduce blockage (dams) that can back up water. Where practical, section plasticulture fields and install cross drains to remove extra water to improve drainage and reduce water damage potential. Growers may also choose not to plant lower areas in the field prone to water damage where plastic is laid. In some crops such as peppers and strawberries, high raised beds will improve drainage significantly and can reduce losses to water standing between plastic rows. Another option in watermelons (and other strongly vining crops) grown on plastic is to reduce plastic bed width and increase distance between rows to limit impervious surfaces.

In some crops in our region (plasticulture strawberries for example), cover crops such as ryegrass are being grown between beds to reduce erosion. Research on row middle management will be a priority for the future.



Compaction between mulched beds can lead to increased ponding.



When water goes over top of beds they become saturated for long periods leading to plant losses. In this case the water just missed going over the bed (note the trash line). Identifying Poorly Drained Areas for *Phytophthora capsici* Management Growers with crops susceptible to *Phytophthora capsici* (P. cap) are encouraged to evaluate fields with susceptible crops (all vine crops, tomatoes, peppers, lima beans) for drainage issues where this disease can proliferate. The primary keys to P. cap management are limiting standing water, the potential for saturated soils, and water movement across the crop.





Row middles with ponding due to a field depression.

Recovering from Flooding or Waterlogging One option to aid in vegetable crop recovery after floods or waterlogging is to aerate the soil by cultivating (in crops that can be cultivated) as soon as you can get back into the field. This allows for oxygen to enter the soil more rapidly. To address nitrogen leaching and denitrification losses, sidedress with 40-50 lbs of N where possible depending on the crop and crop stage. In vegetable fields that remain wet, consider foliar applications of nutrients. Since nitrogen is the key nutrient to supply, spraying with urea ammonium nitrate (28 % N solution) alone can be helpful. These can be sprayed by aerial or ground application. Use 5 to 20 gallons of water per acre. The higher gallons per acre generally provide better coverage. As with all foliar applications, keep total salt concentrations to less than 3% solutions to avoid foliage burn.

Future Considerations

To address excess water challenges in the future, vegetable growers will need to invest in and plan for drainage in every field. Solutions including land levelling, surface drainage, tiles (tile wells, patterned tiling), and pumping may all need to be considered. <u>See this article by</u> <u>James Adkins on drainage basics</u>.

Southern Bacterial Wilt of Tomato Found-

Jerry Brust, IPM Vegetable Specialist, University of Maryland; <u>jbrust@umd.edu</u>

Southern bacterial wilt of tomato, which is caused by the soil-borne bacterium *Ralstonia solanacearum* Race 1, has been found in several tomato fields just recently. This pathogen affects many solanaceous crops and is found throughout the southern United States.

The pathogen enters plant roots through small wounds such as those caused by insects, nematodes, cultivation, or transplanting. The bacteria then multiply in the vascular system, eventually clogging the water conducting vessels with bacterial cells and slime which prevents water and nutrients from moving throughout the plant. Initially, infected plants develop wilt symptoms in the afternoon, and recover in the evening. Symptoms can develop quickly, especially when fruit is rapidly expanding, or when temperatures are 85-95° F and moisture levels are high. As the disease progresses, the base of the plant may show brown cankers, root rot, and a section of an infected stem may show a brown discoloration of the vascular tissue (Fig. 1). The plant eventually becomes permanently wilted and death occurs. A freshly cut stem at the base of the plant placed in water can show a stream of a white slimy substance (Fig. 2A) that

is a strong indicator of the bacterium present in the vascular tissue (Fig. 2B). The interior of the stem also can be a dark or light brown in the pith area (Fig. 3).

Bacterial wilt is difficult to manage once present in the field. There are no chemical controls that provide effective management. This disease can be introduced into fields through infected transplants, water runoff from adjacent contaminated fields, or movement of tools and equipment containing infested soil. Weeds can serve as alternative hosts for this pathogen, so weed control is important in disease management. Crop rotation (for at least 4 years) and planting cover crops of non-susceptible plants (i.e., corn, beans, cabbage) may help reduce populations of the pathogen in the soil. Growers can use tomato plants grafted with bacterial wilt resistant rootstocks in fields where bacterial wilt is present. A list of resistant rootstocks is available on the USDA tomato rootstock page and includes such examples as Armada, Bowman and RST-05-113-TE rootstocks.



Figure 1. Tomato stem infected with *R.* solanacearum, split in half, showing discolored vascular tissue (yellow arrow) and pith (blue arrow).



Figure 2. Bacterial slime streaming out of a cut stem in glass of water (A) and Bacteria streaming out of infected xylem tissue (arrows), viewed under a microscope at 100X (B).



Figure 3. Discolored pith at the base of an infected tomato stem

Managing Heat Stress in Lima and Snap

<u>Beans</u> - Emmalea Ernest, Associate Scientist -Vegetable Crops; <u>emmalea@udel.edu</u>

Snap and lima beans that were planted in early June are approaching the flowering stage. Early June plantings frequently experience the most heat stress, since they flower in mid-July, which is often the hottest part of the summer. High temperatures during flowering interfere with pollen release and reduce pollen quality in beans. This results in poor fertilization and seed development. In snap beans, plants often retain pods with few seeds, but the pods will be short, twisted and lumpy. In lima beans, poorly fertilized pods tend to drop, new flowers will form, and harvest will be delayed.

Both lima and snap beans are more affected by high nighttime temperatures than high daytime temperatures. Work demonstrating this in lima beans was done in the 1970s at the University of Delaware and the same pattern is present in snap beans. Lima beans are very tolerant of high daytime temperatures. In my own experiments I found that even the very heat sensitive variety, Fordhook 242, will produce a normal yield in summer greenhouse experiments where daytime temperatures consistently exceed 110 °F if the night temperatures are reduced to 65 °F. The exact nighttime temperature that begins to cause problems in heat sensitive lima and snap beans has not been established but it is approximately 70 °F. Nighttime temperatures of

80 °F are commonly used to screen varieties for heat tolerance.

I analyzed yield and days to harvest for five baby lima varieties planted in early June trials over eight years. Using base 50 °F growing degree days (GDD) I aligned growth stages across the eight years and looked at correlations between night temperatures at different growth stages and yield and days to harvest. The period in which temperature was highly correlated with yield and days to harvest was 600-700 GDD, which corresponds to the early flowering period when a few flowers have opened, and many buds are forming. Night temperatures during full flower, 700-800 GDD, also correlated with yield, but not with days to harvest. This suggests that night temperatures above 70 °F in early flowering will reduce lima bean yields and increase days to harvest. High temperatures during the full flowering period will reduce yield but may not delay harvest. On average over the 8 years, the 600-700 GDD interval was 41-46 days after planting and the 700-800 GDD interval corresponds to 47-60 days after planting.

Similarly, in snap beans, developing buds are more heat sensitive than open flowers. High night temperatures when buds are forming are more likely to cause yield and quality loss.

To manage heat stress in beans it is important to maintain adequate soil moisture during the heat sensitive early flowering and full flowering stages. Plants cool themselves through evaporation of water from the pores (stomates) in their leaves. Under drought stress, plants close their stomates, leaf temperatures rise and photosynthesis ceases. It is possible that nighttime overhead irrigation during the sensitive stages could mitigate heat effects. An experiment is underway to test this in lima beans at University of Delaware's Warrington Irrigation Research Farm. As a part of this experiment we are also interested to see if nighttime irrigation increases disease pressure.

Variety selection is another approach to heat stress management. I have been testing snap bean varieties from several seed companies for heat tolerance in trials since 2017. In these trials I assess yield and quality. Heat tolerant varieties produce high yields of straight "Fancy" grade beans, even under heat stress, whereas heat sensitive varieties do not. Several varieties that have demonstrated good heat tolerance in these trials are available to growers: PV 857, Annihilator, Dominator and Usambara (flat podded type).

Developing heat tolerant lima bean varieties is a major goal of my breeding program at University of Delaware. I have identified several highly heat tolerant lines that produce consistent yield even with continuous night temperatures of 80 °F. None of the heat tolerance sources are green seeded, but I have crossed them with regionally adapted green baby limas and am making progress in developing heat tolerant green baby types.

Large seeded Fordhook and pole limas are more heat sensitive than the baby limas. In largeseeded types heat stress impacts not only pollination and pod set but also seed filling. I am working to develop heat tolerant varieties in these classes, but they present greater challenges than the baby limas because multiple physiological processes are affected by heat and these are likely controlled by separate genes.

High night temperature cause yield and quality loss in bean plantings nearly every year on Delmarva; right now, our best mitigation strategies are heat tolerant varieties and irrigation during the heat sensitive flowering stages.

Cucurbit Downy Mildew Now Present in the

<u>Region</u> - Jake Jones, Extension Agriculture Agent, Kent County; <u>jgjones@udel.edu</u>

Downy mildew was found on processing cucumber in Hurlock, Maryland on Monday, July 6, 2020 and Milford, Delaware on Tuesday, July 7, 2020. Widespread rain throughout the region on Friday, July 10, 2020 will accelerate the oncoming epidemic by providing near optimal conditions for infection, cool temperatures and prolonged periods of leaf wetness. All cucumbers are now at risk in the region and should receive preventative fungicides sprays with downy mildew specific fungicides. Research from UD and UMD has shown the importance of fungicide

timing, with significantly less downy mildew severity in earlier applied treatments on both resistant and susceptible cucumber varieties. Effective fungicides are listed in the Mid-Atlantic **Commercial Vegetable Production** Recommendations: https://www.udel.edu/acad emics/colleges/canr/ cooperativeextension/sustainable-production/commercialcrops/vegetable-crops/midatlantic-vegetablerecommendations/. Fungicide bioassays from UMD have shown Orondis, Zing!, Bravo, Ranman, and Omega to be some of the most efficacious fungicides tested on cucumber seedlings (2016-2019). Fungicide rotation, tank-mixing with a protectant fungicide, and the use of resistant varieties can help maintain the efficacy of fungicides and reduce cucurbit downy mildew severity.

Currently, downy mildew has only been found in cucumber and the strain that infects other cucurbit vegetables has not been observed in our region but can be expected later in the summer.

Agronomic Crops

Agronomic Crop Insect Scouting - David

Owens, Extension Entomologist, owensd@udel.edu

Field Corn

Continue scouting for Japanese beetle silk clipping and for pollination progress. If beetles have clipped silks back to less than a half inch and corn is less than 50% pollinated, a spray may be needed. However, it usually takes an extremely high number of beetles to do this. Beetles will concentrate along pivot tracks and the edges of fields, as will stink bug.

Soybean

Recent rains over much of the state have helped the bug situation in soybeans. Continue scouting for spider mites. While rain helps plants compensate for mite injury, rain is not a cure for mites. Now that full season beans are flowering, defoliation thresholds decrease to 15-20% defoliation. Worms, Japanese beetles, and bean leaf beetles are all active right now. The good news is that, should a spray be necessary, all of the current active defoliators are susceptible to pyrethroids. But pay careful attention to any sprayed fields once earworm flight picks back up, as pyrethroids will remove a lot of beneficial insects.

Alfalfa

Potato leafhopper are very active right now. A dynamic threshold developed by Penn State was incorporated into the alfalfa recommendation guide earlier this year and can be found here: <u>https://www.udel.edu/academics/colleges/canr</u>/cooperative-extension/sustainableproduction/pest-management/vegetable-fruit-field/alfalfa/.

Rescue Treatments for Soybean Weed

<u>Control</u> - Mark VanGessel, Extension Weed Specialist; <u>mjv@udel.edu</u>

This is the point in the season when I get calls asking what can be done to rescue soybean fields from weeds that "got away". Unfortunately, there are not a lot of good options for control of most large weeds. Of course, there are always exceptions such as Velvetleaf (Aim, Cadet, Resource), volunteer corn (Poast, Select etc.), and most grasses (glyphosate, Poast, Select). However, when it comes to glyphosate-resistant species the options are very limited.

There are situations where someone "took out large resistant weeds" with a given herbicide. However, there are a lot more situations where these large resistant weeds were not controlled with the same herbicides. So, first, be realistic about your expectations. Do you want (or need) to kill the weed that is in the field? Do you want to limit (or stop) seed production? Alternatively, do you just want to set it back to limit its competitiveness?

If looking at killing large Palmer amaranth or common ragweed, do you have the right genetics in your soybeans. It's July, so unless you are in a unique situation dicamba and 2,4-D should not be discussed. ALS-inhibiting herbicides like Classic, Synchrony, FirstRate or Pursuit are generally not an option due to resistance.

If you have soybeans with the Liberty Link or Enlist trait, you can spray Liberty. Otherwise,

the options are limited to Reflex, Ultra Blazer, or Cobra and they are not good choices since they are not very effective on large weeds. All of these products are contact herbicides and require good spray coverage (high gallonage and medium sized droplets). If you need a high level of control, then it may require two applications; and the applications should be made within 7 to 10 days of one another. In on-going trials with Liberty, we did not see any benefit with including Cobra or Reflex as a tankmix partner. Refer to the labels for allowable number of applications (Reflex can only be applied once every two years), total amount of product allowed, and allowed crop stage for late applications.

Assessing Pastures in Preparation for Fall

<u>Pasture Renovation</u> - Amanda Grev, Pasture & Forage Specialist, University of Maryland Extension; agrev@umd.edu

With the current warm temperatures it may feel like fall is still far away, but the end of summer will be here before we know it and now is the time to be thinking ahead about plans for pasture renovation this fall. Despite our best managerial efforts, many of our forage stands will eventually require some form of renovation. Whether we have simply let our fertility slip, lapsed a little in our harvest management, allowed some fields to become overgrazed, or some weeds have taken over and outcompeted the desirable forages, an unproductive pasture is often the result. Couple this with the severe drought and extreme wet conditions that Mother Nature has all too often thrown our way in recent years and we may find ourselves scratching our heads and wondering how we got here and what to do about it.

The first step is to recognize that poor forage stands are often a symptom of an underlying cause. More often than not the major causes of poor pasture productivity include a lack of adequate fertilization and/or poor grazing or harvest management. If this is the case, keep in mind that if a stand is thin as a result of poor soil fertility or overgrazing, the problem will not correct itself just because you've added more seed. To achieve real success, these underlying issues will need to be corrected. If environmental conditions such as flooding or drought are at fault, we can work to overcome those by selecting species or varieties that will be more resilient to those conditions moving forward.

Along those lines, one other point of note is that renovation does not always require completely starting over with a full reseeding. Renovation can also occur in the form of improvements in management, better fertilization and weed control, the addition of legumes into grass pastures, or overseeding into thinner areas.

When deciding whether or not renovation is needed, take some time to assess the current condition of your pastures. Are they performing as well as you would like? Has there been excess damage from environmental conditions? How well have you been managing the stand? Are there a lot of undesirable species or weeds present? In addition to asking yourself these questions, an objective assessment of the pasture stand can be helpful. One such assessment is the step-point method, which involves walking through each pasture in a random pattern and noting the forage species (or lack thereof) at various locations throughout the pasture (see specific steps below). Recording these observations allows you to objectively calculate the vegetative cover and percent desirable forages for a given field. In addition, take note of other key indicators such as forage diversity, plant vigor, presence of insect or disease damage, signs of erosion, or other observations as you walk.

The Step-Point Method for Pasture		
Vegetat	ive Cover Assessment	
Step 1	Denote or mark a specific spot on	
	the tip or edge of a shoe or boot.	
Step 2	Based on the major species present	
	in your pasture, determine which	
	forage species to include as	
	categories. As an example, you	
	could include tall fescue,	
	orchardgrass, Kentucky bluegrass,	
	white clover, red clover, other	
	legume, other grass, undesirable	
	species (weeds), and bare ground.	

Step 3	Walk through the pasture in a random zig-zag pattern stretching from one end of the field to the other. Avoid walking near gates, waterers, laneways, or other heavily used areas. Every 10 to 20 steps (depending on pasture size), stop and take note of what is directly under the designated spot on your shoe. The spot will fall directly on top of a specific plant species, make a mark for or write down which forage species (or bare ground) is present based on your pre-determined categories.
Step 4	After recording 50-100 stops, add up the number of marks for each forage species or category and calculate the percentage of each species.
Step 5	Repeat the above steps for each pasture.

If damage is light and there is a high proportion of desirable species and a low proportion of bare ground or undesirable weeds, then some rest, fertility, and weed control might be all you really need. If the damage is more moderate, perhaps frost seeding in some clovers or overseeding the worst areas would also help. If you have a low proportion of desirable species and a higher proportion of bare ground or undesirable weeds, you may want to consider terminating the existing stand and reestablishing the field with a suitable forage species based on your farm, your system, and your needs.

If you do decide to fully renovate, you have several options. The renovation process is a chance to upgrade your forage system and to capitalize on new and improved forage genetics. You may decide to do a rotation or two with an annual forage as a smother crop to help suppress weed populations, prevent soil erosion, build soil fertility, mitigate soil compaction, and provide a high quality forage source during the renovation process prior to planting the field back into a perennial stand. Either way, there are several steps you should follow to make sure the reseeding process goes smoothly, so start thinking ahead on some of the necessary steps moving forward. Think about forage options that will work for you and look for good quality seed to purchase. If you don't have a recent soil test, take some soil samples and begin correcting any soil pH or fertility deficiencies. If weeds are a problem, be sure to allow adequate time to achieve good weed control and still be able to plant in a timely manner. Recognize that in some situations a single herbicide application may not always be enough, and be mindful of any herbicide carryover that might affect seeding.

No matter how you decide to proceed, now is the time to be thinking ahead and making plans for this fall. Stay tuned next month for an overview of the key steps for optimum forage establishment and some common establishment mistakes to avoid.

General

<u>Guess the Pest! Week 14 Answer: Sunscald</u> - David Owens, Extension Entomologist, owensd@udel.edu

Congratulations to Mona Steele for correctly identifying the problem with my 4th of July pie berries as sunscalding. High temperatures, wind, water stress, and direct sun exposure cause this whitening or bleaching of berry drupelets. Orienting rows North to South can help, and make sure your plants have adequate soil moisture.



<u>Guess the Pest! Week 15</u> - David Owens, Extension Entomologist, <u>owensd@udel.edu</u>

This week we jump back into snap beans. As you are walking down this row, you see some small insects flying out from under the foliage but its hard to catch them because the sweep net got wet yesterday and is in the shed drying out. You also notice what looks like a potential nutrient issue. What is this?



Test your pest management knowledge by clicking on the guess the pest logo and submitting your best guess.

https://docs.google.com/forms/d/e/1FAlpQLSfU PYLZnTRsoI46hXmgqj8fvt5f8-JI0eEUHb3QJaNDLG_4kg/viewform?c=0&w=1



Announcements

Health Insurance Webinar Series

Money, health and health insurance are interrelated. Learning what options are open to you and how best to choose and use your health insurance in times of Covid-19, is the smart action to take. This upcoming free webinar series will be for you if you are confused about health insurance options and how to get the most of your insurance policies. Brought to you by your colleagues at University of Delaware and Maryland Extension. Registration can be found at: https://go.umd.edu/health_insurance.

July 14 5:00-6:00 p.m. Smart Use Smart Actions

Knowing how to use your health insurance will make you a smart health care consumer. Identify smart actions that will help you become a Smart User of health insurance. (5:00 to 6:00PM)

July 21 5:00-6:00 p.m. Smart Use Understanding and Estimating Healthcare Costs

Taking control of your health care costs makes you a smart health care consumer. Better understand and estimate your health care expenses so you can plan for future health care costs. (5:00 to 6:00PM)

July 28 5:00-6:00 p.m. Smart Use Managing Health Insurance and Resolving Conflicts

Do you know what to do if you are denied coverage for care? What if you think you were billed incorrectly? Learn how to manage the process for handling disputes with your health insurance company and how to avoid them. (5:00 to 6:00PM)

To register for any session, visit: https://go.umd.edu/health_insurance

For more information on the Health Insurance Literacy Initiative, visit<u>https://extension.umd.edu/insure</u> Category 1 CEUs available for Maryland and Delaware Social Workers

Hey Hay! Selection and Matching Hay with Stock Needs

Wednesday, July 15, 2020 7:00-8:00 pm EST Online

With Susan Garey, Extension Agent Animal Science and Den Souerson, New Castle County Agriculture Agent

Dan Severson, New Castle County Agriculture Agent-University of Delaware

What should you look for when selecting quality hay for animals? How do you match hay quality with animal needs? What are some decision making tools to help you when purchasing hay?

Registration is free but required to access the Zoom webinar. Registration link: https://www.pcsreg.com/hey-hay-selecting-andmatching-hay-with-animal-needs

Extension302 Podcast - What's the Deal with Dicamba

https://www.udel.edu/academics/colleges/canr/coopera tive-extension/about/podcast/

A federal court has recently withdrawn the conditional usage regulations for the common herbicide Dicamba. Why did this happen and what does this mean for Delaware's farmers?



Crop Talk from University of Maryland Extension

July 16, 2020 12:00 p.m. EST Online via Zoom

Join agents and specialist as the discuss current crop conditions and timely crop production topics:

- Fungicide decisions for corn and soybeans
- Rescue herbicide applications

- Wheat observations
- Assessing pollination in corn
- Cucurbit fungicide program

Registration required:

https://go.umd.edu/CropTalkJuly2020

Commercial Cut Flower Educational Summer Session July 28, 2020

The Perennial Farm Glen Arm, MD

The MNLGA along with UMD Extension, the Association of Specialty Cut Flower Growers and the MD Cut Flower Growers Association are planning an outdoor cut flower growers diagnostic meeting on **July 28th**! This meeting will be held at **The Perennial Farm in Glen Arm, Maryland**. A light breakfast as well as a catered lunch is included in your registration fee. <u>View the event program</u>!

The cost for this event is just \$30 for both members and non-members.

REGISTER TODAY!

This event will be capped at 26 people and registration will close on July 21st if the cap hasn't been met before that date. <u>Please register early!</u> If we are for some reason unable to hold this event due to government restrictions - we will let you know immediately and a full refund will be given. If we do reach capacity on this event, we will provide access to a Wait List where you can sign up in the event that an existing attendee is unable to make it.

We will be following all CDC guidelines as well as local guidelines. We ask that attendees wear a face covering for the duration of the day. We will be providing hand sanitizer as well as wipes and disinfecting areas regularly. We ask that everyone keep social distancing guidelines in mind and stay 6 feet apart at all times. All food will be individually wrapped and easy to grab and go. We look forward to seeing everyone at this in-person event!

Credit Information:

MD CPH: 1 CPH CEU MD Pesticide Recertification: 4 Credits in Categories: 3A, 3B, 10*, PVT* For more information contact: Suzanne Klick, <u>sklick@umd.edu</u>, 301-596-9413

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of July 2 to July 8, 2020

Rainfall:

0.86 inch: July 6 0.88 inch: July 7

Air Temperature:

Highs ranged from 95°F on July 3 to 84°F on July 7.

Lows ranged from 72°F on July 8 to 65°F on July 2.

Soil Temperature:

81.5°F average

Additional Delaware weather data is available at http://www.deos.udel.edu/data/

Weekly Crop Update is compiled and edited by Emmalea Ernest, Associate Scientist - Vegetable Crops. Aisha Hoggard assists with web posting.

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