May 2020

Volume I, Issue 2

UF IFAS Extension UNIVERSITY of FLORIDA

Columbia Connections

UF/IFAS Extension Columbia County

Edited by: J. M. Capasso

Introduction

Despite COVID 19, farmers in Columbia County are still working to put food on the table. UF/IFAS Extension is here to help by providing research-based information to our Columbia County residents and farmers.

Weather wise April was an interesting month! We have seen poor fruit set in watermelons and twisted whirl syndrome in field corn. Both a result of cooler wetter weather during parts of April. There is not much we can do about watermelon fruit set but hope it leads to better market prices. Field corn should grow out of funky twisted whirl growth symptoms without much impact on yield.

In this month's newsletter we have included articles from each of our extension agents. As peanut planting season begins, see my articles on peanut soil management and peanut diseases/fungicide programs. We have also included educational articles on lovebugs, cashing your stimulus check, mindfulness, and weed identification.

Currently we are under some travel restrictions but can request special permission to travel for important situations where social/physical distancing can be practiced. We can also help by consulting by phone and/or email. Please contact us if there is any way we can help!

Sincerely,
Jay Capasso

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Articles

Agents contributing to this newsletter are all UF/IFAS Extension Columbia County employees and their specialties are listed, along with their email addresses and phone extension numbers below. You can call us anytime at **386-752-5384**.

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Peanut Soil Management

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Peanuts are a leguminous crop that fix atmospheric nitrogen. Much of the focus on soil fertility for peanuts is calcium. Calcium is needed in the pegging zone (top 3 inches of the soil) where the fruit or nuts absorb calcium directly from the soil rather than through the roots.

Calcium: Soil testing can help determine how much calcium is present and how much more is needed. Gypsum usually supplies the needed calcium as well as sulfur for peanut production. University of Georgia recommends 500 – 1000 lbs of gypsum per acre around early bloom depending on soil test level. Virginia type peanuts and peanuts grown for seed should receive a ton or 2000 lbs per acre. When lime is used to supply calcium to peanuts apply at planting because calcium in lime is less soluble than in gypsum. Only use lime when looking to increase soil pH. Do not deep turn soil after liming applications. Water is needed for peanuts to absorb calcium from the soil. The critical pod fill period when calcium is needed is 60-90 days after planting. For dryland peanuts avoid planting too late so critical pod fill period lines up with high rainfall months June-August. Too much rain around early bloom can also be problematic for gypsum application. During years when wet conditions delay gypsum application during early bloom period, or if gypsum is ever in short supply, calcium chloride or calcium thiosulfate can be applied through the pivot on irrigated land 60-90 days after planting. Deficiency in calcium in the pegging zone leads to 'pops' or unfilled pods as well as pod rot and black heart issues.

Calcium in the pegging zone (Credit Glen Harris, UGA)

pH: Ideal pH for peanut is 6.0 – 6.5. Add lime if soil pH tests below 5.8 with a target pH of 6.2-6.5. Generally, dolomite is recommended over calcitic lime because of cost and the presence of magnesium. If soils test high in magnesium, calcitic lime is recommended to avoid interference with calcium uptake. When pH is low peanuts risk aluminum and zinc toxicity. Manganese deficiency often occurs in high pH soils of 6.3 or above.

Nitrogen: Consider applying liquid inoculant or using seed treatment each year to insure biological nitrogen fixation. Apply inoculant if field has been out of production for more than three years. I am not aware of any research that suggests application of nitrogen fertilizer increases peanut yield.

Phosphorus and Potassium: Peanuts have deep tap roots making them good scavengers of phosphorus and potassium. Apply phosphorus and potassium based on soil test recommendations.

If you send soil samples to a private laboratory ask for the Mehlich 3 extraction, especially if you are enrolled in the BMP program. Rotating peanuts with field corn often provides enough residual phosphorus and potassium. Excess potassium in the pegging zone can interfere with calcium uptake. A calcium potassium ratio of 3 to 1 is recommended in the pegging zone. Apply all needed potassium or phosphorus at or near planting. There is no advantage to split applications.

Manganese: Deficiencies often occur in high pH soils. Manganese is often applied through foliar sprays but there are products that can be applied to the soil as well.

Peanut Diseases/Fungicide Programs

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Overview

A good fungicide program is one of the most important management practices involved in peanut production. In the southeast wet and humid conditions lead to many fungal diseases such as early / late leafspot and white mold (also known as stem rot). Fungicides for leaf spot diseases are often initiated around 30 days after planting, while fungicides that protect against soil borne diseases such as white mold are initiated around 60 days after planting. The length of time a fungicide can prevent plants from becoming infected by new fungal diseases is dependent on the fungicide and environmental conditions. Most fungal diseases are more problematic during wet conditions. Therefore, during high rainfall periods increased frequency of fungicide sprays may be required to protect the crop. During dry periods the interval of time between fungicide applications may be prolonged. Fungicides should be sprayed prior to the onset of disease! It is important for applicators to have good coverage of fungicide over crop. A spray volume of at least 10 gallons an acre is usually required.

Seedling Diseases

One of the best ways to manage seedling diseases is to plant into warm and moist soils. These conditions support germination, growth, and early season vigor helping to resist seedling diseases such as Aspergillus crown rot (in furrow fungicides such as Abound or Proline and seed treatments also help) and nematode damage. Planting into cooler and wetter soils slows the germination process giving seedling diseases more time to infect and kill seedlings.

Peanut rust

Peanut rust is a rare but explosive peanut foliar disease. Symptoms include orange pastules or dots appearing on the lower leaf surface. The pathogen is not believed to overwinter in north

Florida and is likely blown in from Caribbean / south Florida. If rust is identified contact UF IFAS Columbia County extension and consider shortening spray intervals. Many of our fungicides sprayed for leaf spot and white mold have activity against rust such as chlorothalonil and tebuconazole products as well as brand names Elatus / Fontelus. Due to the sporadic nature of peanut rust, most fungicides have not been well tested in Florida on the disease.

Tomato Spotted Wilt Virus

Although not a fungal disease, tomato spotted wilt virus was problematic in 2019. Even though, it was a bigger problem in the pandhandle than the Suwannee Valley region. Infection of tomato spotted wilt virus is primarily caused by thrips. Except for thimet (phorate) insecticides aimed at reducing thrip populations have not been effective at suppressing tomato spotted wilt virus. It is unclear how thimet suppresses tomato spotted wilt virus. It may cause a defense response in the plant to occur which allows the plant to better resist the virus. Application of thimet in furrow at planting and avoiding the use of classic herbicide can help combat tomato spotted wilt virus. Later planted peanuts (mid may) are at less risk of thrip damage and tomato spotted wilt virus.

Additional information

Use of velum total may help control nematodes in problematic fields and protect against leafspot diseases. If velum total is applied in furrow at planting leafspot fungicide programs may not need to begin until 45 days after planting rather than 30 days. Syngenta's new leaf spot fungicide Miravis may allow for growers to switch from a 7 to 5 spray program. Miravis should be sprayed early to mid-season. It will not be helpful as a final spray if your field already has leaf spot!

Peanut Rx (see link below) is a great tool for evaluating your fungicide program based on your peanut variety, management practices, and field history. Use of the tool can help growers evaluate their risk of tomato spotted wilt virus, leaf spot diseases, and soil borne diseases.

Peanut Rx Calculator

https://peanuts.caes.uga.edu/extension/peanut-rx.html

No Love for These Bugs!

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It is almost lovebug (*Plecia nearctica)* season in North Florida and you may have noticed a few more of these strange looking bugs flying

The Life of a Lovebug

Lovebugs are flies that are black with a red spot on their backs and harmless to people. You may notice them as a single insect or attached together. Lovebugs that are attached are mating, which can take up to 12 hours. The female then lays eggs on the soil or just under leaf litter. Lovebugs tend to live near pastures with bahiagrass, moist areas, and wooded areas. They prefer areas with consistent moisture and some shade and usually found near roadsides. North Florida typically has two lovebug seasons in May and September. Luckily, adult lovebugs tend to hang around for only about 4 weeks.

Where Did They Come From?

The first record of lovebugs is from Escambia County in 1949. They migrated from Central America through Texas and finally into Florida. Lovebugs have now been found in all Southern states and as far north as North Carolina.

Do They have a Purpose?

Many people wonder if lovebugs have a purpose. They don't bite, eat plants, or seem to do much of anything except be a nuisance. While the adult lovebug may not seem very helpful, the larvae actually play a role in the ecosystem. Lovebugs lay their eggs in leaf litter and on the soil surface. The eggs hatch and the baby lovebugs then feed on decaying materials, causing this material to breakdown further. It is an important function for soil development.

Cashing that Stimulus Check

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The stimulus checks from the CARES Act have begun hitting Floridian bank accounts. As exciting as this is for all of us, it is also a time to think about what should I do with this money? Of course, if you are in a situation where you have lost your job or are having financial difficulty this check is to help you pay your bills and meet your immediate needs. However, after those needs are met or if you are someone who is staying afloat then it is time to consider what can you do with this money. The ideas below are to help you use this money both effectively and to its maximum benefit for you and your family.

Make a new budget

Whether you already have a budget or this is a new idea for you, now is the time to make a new budget. A lot of things have changed in the last month and our world still has no date for when things will it back to any kind of

normalcy. We need to create a budget that reflects these changes and helps us to stretch this stimulus check for the duration of the effects. We need to set a budget that allows us to pay our bills and purchase necessities as well as prepare for what is still to come.

Fund an emergency account

Whether you already have an emergency account or this would be your first, there has never been a better time to start putting any extra money you currently have in there. The idea is for you to save money now just in case you get into a situation that you need extra money later.

Other options

If you truly can't set the money aside in an emergency fund, then use the money to pay off or make a large payment on your highest interest bill which typically is a credit card. This will allow you more credit for the future if needed.

The thing to remember with the stimulus check is it most likely a one-time boost for you and the economy. This money has been given to you based on a special refundable credit that will appear on your 2020 tax returns. So now is the time to figure out your budget, cut back where you can, and plan ahead now for the future is unseen.

What Is Mindfulness?

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Mindfulness is paying attention to what is going on around us in a way that allows us to respond rather than react. In addition, it is a quality of being still on the inside and recognizing that this quality is always available, even when our life or circumstances feel out of our control and chaotic. You can be mindful, aware, or even pay attention to everything in our experience including anything we experience through our five senses, as well as our thoughts and emotions.

Practicing mindfulness gives numerous benefits including:

- Increases awareness
- More working memory
- Self-insight and awareness
- Reduced stress and anxiety
- Increased control over automatic behaviors

Changes in your brain

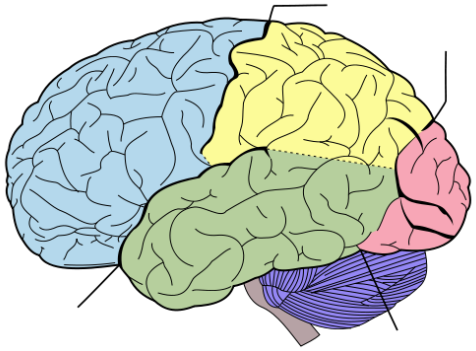
Scientists have researched how mindfulness effects the brain. Scans show changes in the brain in the prefrontal cortex. It can be seen in blue in this diagram. This area is in the front of your brain and controls body regulation, emotional regulation, self-awareness, and fear modulation.

Practicing

If you wish to practice mindfulness, you must have direct involvement of one of your 5 senses. An anchor can help as your object of attention and it is what can draw you back to practicing when you become distracted. A mindful posture is the beginning of focusing. It includes facing forward, having your back upright, stillness, quietness, being relaxed yet

alert, and letting your eyes close. You will become distracted. You simply should notice distractions and let them pass. Don't start dwelling on these thoughts. You can try to focus on the simplicities of sound, breath, movement, thoughts, emotions, and other simple things.

For mindfulness to work, we must really try it. And in the beginning, it might seem weird or pointless. Furthermore, keep in mind that everyone experiences things in different ways. If we don't try it, we can't determine if it is useful for us or not. All the things you were asked about are the things that practicing mindfulness can help you with.



Source: Vectorized in CorelDraw by Mysid, based on the online edition of Gray's Anatomy; Author: Mysid, arrows were added by Was a bee

Weed Control Begins with Identification!

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In the last week or so I have received several calls asking about weed control in your hay fields and pastures. Whichever field it is, weed control begins with identification! It is extremely difficult to control something when you don't know what it is! We can't make an effective herbicide recommendation or cultural activity without knowing what plant/weed we are dealing with. But how do you find out? There are several ways actually!

Picture this:
The first way is you can take a picture of it. If you do take a picture do a couple of things to help the person identify the plant. Take a picture of it "where it is"! By this, I am talking about is it next to a tree line, in a field, basically what else is around. So take a few steps back and get a long range shot like the one here.

As you can see this weed is located on a roadside, close to the ditch. This tells us something about the weed's characteristics, like growth habit (upright) and it's very prolific. Then the next picture should be a close up with scale in it if the 1st picture did not provide some. When I take a photo for scale I typically use something we all can relate to. See in this picture, which is a close up, but it provides a nickel to show the size of the plant in comparison. A ruler will work as well but you

may not have one of those with you in the field. So use what you do have, pocket change, a dollar bill, maybe even a 5 gallon bucket. It all depends on the size of the plant you need identified.

This is creeping indigo and not only does the nickel show us the leaf size but also the flower size and I can see the plant is running along the ground. A picture really does provide a lot of information that a mere description does not.

Dig:

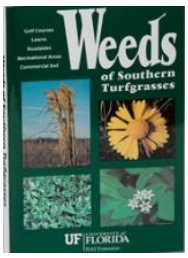
If you don't have a camera handy or a camera on your phone then dig the plant up or get a good sample. Try and get the root system if it is a small sized plant or if it is too large or a tree take a small limb with a flower if possible. Do not bring in a single leaf or blade, those will not typically allow for a positive identification. If there are flowers try not to damage them. Once you have the plant you need to keep it "as is" meaning try and keep it moist and out of the heat. Don't put it on the dash until you get to town to give it to me or whomever is going to identify it for you. Place the sample in a bag if you have one and place a moist paper towel around the root or base if you can. This is why both a picture and a fresh plant sample is preferred! The combination really allows us to see the whole picture without a visit. Which leads me to the next option.

Field Visit:

As an Agriculture Extension Agent a field visit is what I call our bread and butter! We like being in the field and seeing first-hand the situation! Many times while there we can assess the surroundings and the whole situation which can lead to maybe even better weed control for you, not just the identification of a plant!

Book It:

Whether I come out, you send me a picture or bring me a sample or even if you try to identify on your own, you are probably going to use a book to help identify your plant sample! I use Weeds of Southern Turfgrass available at the UF/IFAS Bookstore (http://ifasbooks.ifas.ufl.edu/p-150-weeds-of-southern-turfgrasses.aspx).



Wrap up:

Once we determine the weed's identity there are still a few questions left to ask before we can give you the herbicide recommendation to control them. You will need to let me know what type of grass/forage the weed is in, can you remove animals for a period of time or wait to cut your hay. There may be restrictions on what you can use, so the sooner we identify the weed the sooner you can control it! In conclusion, by providing us with a plant sample, photo or a field visit we can help you control the weeds in your fields and save you money on their control by giving you the research-based recommendations! Let me know how I can help!