NC STATE

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TEST: Agricultural News From Craven County Extension

1 message

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NC STATE EXTENSION

NC Cooperative Extension, Craven Center

Agricultural Update

June 9, 2023

In this Newsletter.....

Important Note: *Registration deadline for events listed below will vary from as few as 24 hours prior the event to as much as 3-4 days prior the event so please register as much in advance as possible. Also, while attendance is open to anyone, meals, when served, will only be provided for those that register in advance.*

UPCOMING EVENTS

NC Irrigation Society Summer Tour – On June 29, 2023 from 9:30 am - 3:00 pm at the Peanut Belt Research Station, 112 Research Station Lane, Lewiston-Woodville, NC. Planned stops include Water Capture and Reuse Systems and the Total Ag Water Management Site. Topics will include: Linear move irrigation, solid set, subsurface drip, sub-irrigation and surface irrigation in row crop and field crop operations. Lunch will be included. Cost of the tour is $40. Limited seating is available on a first-come, first-served basis with vans leaving from Raleigh and returning to Raleigh (pickup and drop-off location TBD) for an additional fee. **HERE**

2023 Blackland Farm Managers Tour – This tour will be held in Hyde County on August 2nd! This year's tour is hosted by Middle Creek Farms in Engelhard (396 White Plains Rd, Engelhard, NC 27824). Registration will begin at 7:00 a.m. and presentations in the field will begin at 8:30 a.m. A sponsored breakfast and lunch will be provided. NC State Extension specialists will cover the corn and soybean production information.

Fiber Hemp Field Day – On August 8, 2023 from 8 am – 12 pm in Kinston, NC at the Cunningham Research Station NCSU faculty will provide an update of hemp production and review research production plots. Cost of the event is $10. Register via **Eventbrite**.

Pamlico Farm Tour – A tentative date for the morning of July 19, 2023 for the Pamlico Farm Tour. Mark your calendar. More information will be provided soon.

NCDA & CS Pesticide Exams - Exam dates and locations near us for 2023 are below. If you miss these dates, the nearest exam location will be Raleigh, NC. The exam is offered at least once a month in Raleigh. To register for the exam, call 919-733-3556

- **7/12/2023** in Smithfield, NC beginning at 1:00 PM at the Johnston County Ag Center 2736 NC 210 HWY, Smithfield, NC
- **7/20/2023** in Morehead City, NC beginning at 1:00 PM at the Crystal Coast Civic Center 3505 Arendell St.
- **9/13/2023** in Jacksonville, NC beginning at 1:00 PM at the N.C. Cooperative Extension Center, 234 Corridor Blvd
- **12/6/2023** in Greenville, NC beginning at 1:00 PM at the N.C. Cooperative Extension Center, 403 Government Circle

For those wishing to take the NC Pesticide School prior to the exam, information for dates, location and fees for these classes is found at the NCDA & CS Pesticide Division's website.

For individuals wishing immediate testing, online exams are an option.

Most events provide NCDA & CS pesticide credits as well as CCA credits. Check details of the events at the NCSU Field Days Calendar or local NC Cooperative Extension webpages.

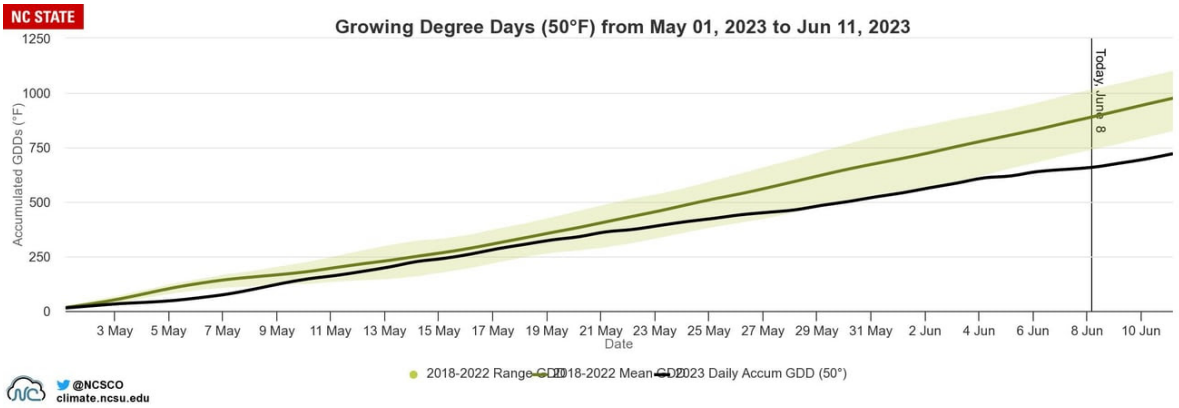
If you desire other meetings or similar meetings in other counties, all meetings, field days, commodity events, etc. within the state are listed **HERE**

- If you would rather obtain NCDA & CS pesticide credits online, click **HERE**

Why Crops Aren't Growing!

Examine the chart below showing the Growing Degree Days based on 50 degrees Fahrenheit (GDD50). The light shaded green area shows the 5 year range of GDD50 with the green line showing the 5-year average. The black solid line shows GDD50 for 2023. Note that 2023 is far below normal. This contributes greatly to the slower than normal plant growth we have experienced thus far this season. This is especially true for root growth. Simply put, we applied all needed nutrients but the

nutrients are not within the small, limited root zone. Thus, plants are not their normal color and/or size. In addition, according to the National Weather Service data, April exceeded average rainfall by almost 3 inches. In May, rainfall was near normal. As such, frequent rainfall kept soils wet. When coupled with the cooler temperatures, this made plant nutrient uptake even slower!



Now is a good time to examine areas of very small plants or uneven growth. These are likely areas with problems. As example, we have taken samples from such spots this year to note extremely high stubby root, root knot and lesion nematodes. In other areas, extremely low levels of nutrients such as magnesium, potassium or sulfur are noted. The point is that when plants are stressed by such weather, any and every adverse situation is amplified and becomes easily evident. Even low numbers of nematodes that normally would cause severe damage may show this year. Examine fields and take soil and nematode samples if you notice such areas.

Predictions are that this “trend” is over and we will begin having higher temperatures. Thus, plants should begin growing more rapidly. This will indeed occur if night temperature exceeds about 65 degrees F or so. If not, plant growth will remain slow.

It's Cold. So what?

As just discussed, prolonged colder weather has plants stressed and growing slowly. Below are some thoughts regarding what you should examine and manage.

CORN

- If all nitrogen (N) has not been applied, do so. Use of N that contains sulfur will help tremendously.
- If corn is small enough for travel through the field, foliar products that supply N and potassium (K) will stimulate plant growth. Do not aim for tremendous amounts of product. Application of 1-2 qts/ac for most materials should be sufficient. The point is simply to stimulate growth and keep photosynthesis steady until roots can grow large enough to uptake nutrients more readily.
- Watch for stinkbugs! Stinkbugs are in fields at about the same levels as normal years. However, the plant is smaller and more susceptible to greater damage simply due to the slow growth. However, do NOT automatically treat fields. This is not only unwarranted; it will lead to insecticide resistance. (We’ve proven that continued application of products will lead to resistance already. Let's not keep this trend going!)
- Don’t give up. Many areas of the US and world produce extremely good corn in cool climates. We are simply not accustomed to this. In generally, I’d say that corn plants may be smaller than normal, but this will not be the yield limiting factor.

SOYBEAN

- Soybean growth, just as corn is slow. As such, our “ideal’ circumstance of making one herbicide application just prior to full leaf canopy may not occur because weeds will continue to emerge and grow in spite of the slower soybean growth. As such, it may take multiple trips of herbicide applications to control weeds. Consider applying glyphosate or glufosinate, depending upon the soybean trait tolerance, alone or with a pre-emergent herbicide with an early application. Follow later in the year with glyphosate/glufosinate alone or with tank mixes as needed. The main point is not to let weeds become too large to control.
- Manganese (Mn) deficient plants often are evident when soybean growth is slow and soils are wet. This has been observed and is more common this year. If the soil test results show marginal or low Mn, add Mn as a foliar application. (Mn can be added to most herbicides). If the soil test shows adequate Mn, simply wait. Again, cold, wet soils commonly lead to low Mn uptake but this corrects itself as soils dry.
- Scattered across the state, early soybean growth has been noted with abnormal leaf growth resembling thrip injury or odd shapes. To be blunt, we have many good ideas regarding what might be causing this but no strong evidence as to support any theory. It is usually associated with the very first leaves and does not show beyond the 2-3rd trifoliate. Be aware of this. Do not treat or take any action. It is not problem that can be addressed with insecticides or fungicides! Too, it occurred in some fields last year with no impact on yield.

COTTON & PEANUT (combined due to similarities)

- Like other plants, growth is slow and continues to stress these crops. Since these crops prefer more tropical-like climatic growth conditions, these plants may grow extremely slow.
- Maintain early weed control and include a pre-emergent herbicide with early season applications.
- Monitor for thrips and do not let excessive damage occur. Be aware that thrip resistance to imidacloprid products and acephate products exists. Regrettably, one will not know whether resistance is an issue until 3-5 days after any application of these products. (See notes regarding thrip management)
- In the near future, do not aggressively apply plant growth regulators. Some varieties have very rapid, early season growth yet dramatically slow as the plant is approaching bloom. These varieties may not need a plant growth regulator at all. Even cotton varieties that normally require an aggressive plant growth product regime may not need one this year. It may be better to delay applications until bloom if the plant growth remains slow. Peanut plants do not generally have the same varietal difference but one should similarly consider whether or not growth regulators are warranted before automatically making an application later this year. However, unlike cotton plant growth regulators, those applied to peanuts commonly increase yield.

TOBACCO

- Slower than normal growth has led to uneven growth within many fields. While many are indeed catching up and become more uniform, this uneven growth is likely to result in the need to spot treat contact materials. Be prepared.
- Tobacco budworms have the possibility to cause more significant damage when plants are growing slowly. Scout, yet make sure to treat only when the threshold is exceeded.
- Manganese deficient symptoms are common when soils are wet and temperatures are cold. Plants will have a slightly yellowish to green color similar to sulfur deficiency. Like other crops, foliar applications are great remedial treatments.

Thrip Management

Thrips are becoming more resistant to imidacloprid whether applied in-furrow or as foliar application. As such, these products may not work as intended. Regrettably, now NCSU has documented thrip resistance to acephate (Orthene). Options for management are limited.

Realize that the ability to identify resistance does not necessarily mean that 100% of the population is resistant to these products. However, it there is always that slim chance. So, the best guidelines that we can suggest are to apply the preferred product at the highest rate. Monitor fields 3-4 days after application. If live thrips are still present and new damage is noticed, switch products and apply again.

For cotton, refer to the article, ***Orthene Resistance Confirmed for Thrips in Cotton.*** For peanuts, if Orthene is considered too much of a risk, then Baythroid, Brigade and Radiant are other options. Corn and soybean crops should never be treatments for thrips.

Stinkbugs Are Coming!

As wheat harvest continues and weather warms, stinkbugs previously feeding on wheat will migrate to corn, cotton or soybeans. Stinkbugs can cause severe damage to these crops. Check out threshold and related management for the appropriate crops at the website below.

Corn - **https://corn.ces.ncsu.edu/**
Cotton - **https://cotton.ces.ncsu.edu/**
Soybean - **https://soybeans.ces.ncsu.edu/**

Water Quality Impacts Pesticide Application: A NCSU Survey of Water Quality

Improper water pH, high carbonates, or hard water can rapidly degrade pesticides, especially most fungicides and some herbicides. As such, NCSU is conducting a survey across the state to evaluate the quality of source water used in pesticide application. Samples collected will be sent to the NCDA & CS Agronomic Solutions lab and fees paid by NCSU.

If interested, please contact our office at 252-633-1477 or email me at **mike_carroll@ncsu.edu.** Samples can be collected in any triple rinsed plastic bottle 20-30 oz. Ideally, the source water should run for at least 10 minutes prior to collecting the sample. Once collected, the water sample needs to be refrigerated until mailed.

We will be glad to take these sample for you as you fill up tanks or you can take the sample and we will come by to pick it up. If multiple sources are used, then make sure to label each sample with a unique label that you will remember.

CropSense & Other Podcast

Jacob Morgan, Director of Jones County Extension, produces weekly podcast, **CropSense**, with NCSU faculty and industry. His recent podcast included Drs. Rachel Vann, Guy Collins

and Matthew Vann to discuss soybean planting, cotton planting and tobacco transplant consideration. If you would like to listen to these podcast, visit, https://www.buzzsprout.com/1780395/12734496

Dr. Ron Heinger is posting comments in a podcast named **North Carolina Corn Kernels**. His last presentation addressed choosingnitrogen rates to corn and is located at: **https://www.buzzsprout.com/2191703/12999178**

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Recommendations for the use of agricultural chemicals are included in this publication as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by the NC Cooperative Extension Service nor discrimination against similar products or services not mentioned. Individuals who use agricultural chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any product.

Graphs and charts used in this newsletter courtesy of Dr. Ron Heiniger and Dr. Chad Poole, NCSU.

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