North Carolina Annual Peanut Field Day

North Carolina Peanut Growers Association President Lynn Hobbs is excited to welcome you to the 69th Annual Membership Meeting and Peanut Field Day at the Peanut Belt Research Station near Lewiston-Woodville, North Carolina. Following registration, which begins at 8:30 a.m., the day will start with a tour of research plots from 9:00 a.m. – 10:50 a.m. At 11:00 a.m., the Annual Meeting will begin. The program includes various speakers providing updates for growers on topics such as: local and national promotions activities, legislative outlook, marketing supply and demand, and the 2021 crop update. We will also hear from the new NCPGA CEO, Ashley Collins. The following Tuesday, September 14, 2021, the Association will host the 9th annual Southeastern Field Day at the Border Belt Tobacco Research Station in Whiteville, North Carolina, beginning at 10:00 a.m.

South Carolina Annual Peanut and Row Crop Field Day Back In-Person

Mark your calendars for the 2021 Edisto Peanut and Row Crop Field Day to be held on the first Thursday in September, which is September 2nd this year. Registration will begin at 8:00 am, with the Peanut Field Tour starting at 9:00 am and running until noon, followed by a catered lunch and an afternoon Field Tour for Row Crops. Peanut talks will include Precision Agriculture in Peanuts, Weed Control, Varieties, Cropping Practices, Disease Management, and more. Continuing Education Units and Pesticide Recertification Credits will be offered for those that need them. The Edisto Research and Education Center is located at 64 Research Road, Blackville, SC 29817 just off U.S. Hwy 78 2.5 miles west of downtown Blackville. We look forward to seeing everyone face to face!

Order of the Long Leaf Pine Award

Bob and Sylvia Sutter

Bob Sutter received the 2021 Order of the Long Leaf Pine Award at his Retirement Reception held on July 9, 2021 at Roanoke Country Club in Williamston, North Carolina. The award is an honor granted by the State of North Carolina to individuals who have shown extraordinary service to the state. It is the highest award for state service granted by the Office of the Governor.
By the time this story is published, I hope that everyone’s peanut crop is progressing nicely after the mixed weather this spring. I know some acres had too much water and some not enough.

As you know by now, our CEO Bob Sutter retired on July 31st after 28 years of service to the North Carolina Peanut Growers Association. Bob was a great asset to our association and the peanut growers of North Carolina. I first met Bob around 1986, during the days of the peanut quota, when he worked as a District Director of Agricultural Stabilization and Conservation Service, now known as Farm Service Agency. I was working part-time doing pre-measurement and compliance for ASCS. I would see Bob when he visited the county offices to help County Executive Directors and the county committee with programs implemented by the state office. You could tell then that he was a friend of the farmer.

I couldn’t imagine back then that one day I’d be serving on a board with Bob as the CEO. Through the board, I have experienced his love for the job and the peanut growers of N.C. He represented our association well, whether to talk to legislators, NCSU Researchers, specialists, extension, farmers, or anyone in the industry.

When I was elected President of the Association in September 2020, I felt comfortable with our great CEO in place. During one of our first conversations, I asked him jokingly, “you’re not going to retire on me, are you?” He paused and responded that he planned to retire in July of 2021. That was not the answer I wanted to hear.

Being a great executive and friend to the growers of North Carolina, he had a plan to help us through the transition. First, the executive board became the hiring committee, and then we hired Applied Vision Works to begin the search for applicants. Applied Vision Works was beneficial in crafting a strong job description and narrowing the list down to qualified candidates to interview by phone. We then narrowed the list more to a select few for in-person interviews. We had a very talented list of candidates to choose from, but the board was unanimous in offering the position to our new CEO, Ashley Collins.

Ashley started June 7th and worked alongside Bob for eight weeks. Bob had a plan to have someone in place before his last day to help introduce them to people in the peanut industry, our research partners, national associations, extension, and growers. The hiring committee was excited to see that plan come to fruition. Ashley is eager to be in the role, and the board is looking forward to working with her to ensure a bright future for N.C. Peanut Growers.

Lastly, I would like to thank the executive board for their hard work and dedication to NCPGA in this task. Everyone was faithful in attending the meetings and giving their time and ideas in selecting our new CEO.

In closing, I feel like I am speaking for all the growers in wishing Bob and Sylvia a long and happy retirement. Thank you for twenty-eight years of excellent service to the North Carolina Peanut Growers Association.
We’ve seen in the past few months that consumption has continued to increase for peanuts and peanut butter products. Studies show consumers are staying true to their eating habits and buying groceries online. Peanuts have proven to be an excellent source of protein, they’re sustainable and are good for heart health. As we quickly approach the fall I am looking forward to many of the events listed below.

We’ve got a packed fall full of numerous in person events throughout our three states. I am excited to see people’s faces again and talk about peanuts at upcoming events. The first few events start with the South Carolina Peanut Field Day followed a week later by the North Carolina Peanut Growers Annual Meeting. Both of those events were canceled last year, so this year I am eager to be back together again. Later in September there are two boiled peanut events taking place in Bluffton and Greenville, South Carolina. Boiled peanuts are South Carolina’s state snack, so it is only fitting for these events to be back-to-back this fall while green peanuts are still in season.

Looking ahead, Virginia, North Carolina and South Carolina State Fairs are happening and I am thankful for this. With so much uncertainty last year I am glad to see events like these are going to happen. The Virginia State Fair is always the first to occur and I am planning to work the Virginia Peanut Growers booth space for a few days. This fair is well attended with people who are interested in agriculture and want to know how/where peanuts are grown. After the Virginia State Fair follows the North Carolina State Fair and this state fair is massive. The North Carolina Department of Agriculture does an outstanding job of hosting this event which brings in thousands of people. The NC Peanut Grower Association hosts a recipe cooking contest at the fair and this year the recipe will feature Thanksgiving sides that include 1 cup of peanuts or 1 cup of peanut butter. Our booth at the peanut growers association is always a hit and we hand out in-shell peanuts to folks who visit with us. Other give aways are peanut swag, educational material and peanut recipe cards. South Carolina is the last state fair and I am planning to attend to educate consumers who visit our booth space on how/where peanuts are grown. Those who visit our booth will receive peanut swag, packets of peanuts and educational material.

The Cooper River Bridge Run in Charleston, SC is back and has a cap of 25,000 runners who can participate in the race this September. The South Carolina Peanut Board is a vendor during the two-day Health and Fitness Expo. We plan to distribute packets of peanuts and squeeze packs of peanut butter along with educational handouts and more. Buddy McNutty is planning to make an appearance throughout the two days. Again, what better way to promote peanuts than to those who need protein the most. Most race days, runners are fueling their bodies with carbs and high sources of protein, so our peanuts offer exactly what they need.

Transitioning from in person events to an online presence, we are actively engaging with consumers on a daily, weekly and monthly basis by spreading the message about peanuts via our social media platforms. We’ve seen an increase within the insights page on our platforms and we’re speaking to many different audiences through each site. We post on various topics such as heart health studies from TPI, or early introduction of peanuts to infants from NPB. Pictures, videos, and asking questions of our followers, play a big role in how we interact with our audience. This fall we’ve have many give aways and contests scheduled to run early September through the Christmas holidays. Our website is continuously brought up as another way to educate consumers on peanuts and we encourage consumers to buy from the list of retailers on our site, as well as offering a plethora of recipes for people of all ages to enjoy.

Fall is one of my favorite times of the year with the leaves changing colors, the yummy food, and harvest taking place, it all makes my heart happy. I wish all peanut farmers the best during this harvest season.
It is not only those who have served last name doesn’t start with an ‘S.’ It is not only those who have served in the director’s role who are responsible for the success of the North Carolina Peanut Growers. Credit is also due to the growers who have served and continue to serve on our board, the executive committee, and in many other leadership roles that make this organization great.

As I worked alongside Bob during my first eight weeks and listened to the many stories shared at his retirement celebration, more than one of those stories were about his early days on the job. I look forward to telling and hearing my own stories in twenty or thirty years about the group in the room for my interview and the board members who welcomed me so graciously as I began this journey.

I will always include the memorable phone call I received from Fleet Sugg during my second day on the job. I hope I am blessed with the longevity to make a similar phone call in the distant future. Every day, I am reminded that peanut growers are a family and that our borders are opaque in the Virginia Carolina region, as we all work together for the common good of the farmer. I am lucky to have great colleagues and growers to the north and the south, who have also shown me great support in my first few weeks.

The friendliness is not just limited to our immediate stakeholders; our allied partners at the state and national level have been very welcoming and eager to continue past relationships while also creating new ones. During my first two months, I have spent time with our state Farm Bureau team, various representatives from NCDA, the peanut research team and administrators at NC State, extension agents, the National Peanut Board, APRES, the American Peanut Council, fellow commodity directors, and many others.

It is a new season in more ways than one. As a country, we are hopefully emerging from the season of Covid-19. More and more events are thankfully happening in person. I cannot wait for our Field Day and Annual Meeting at the Peanut Belt Research Station in Lewiston-Woodville on September 9 and our Southeastern Peanut Field Day at the Border Belt Tobacco Research Station in Whiteville on September 14. I am eager to meet more of you in person and hear updates from our partners at NC State, NCDA, the National Peanut Board, the American Peanut Council, and share more about myself. Much like the days of speaking in church, I enjoy talking to a crowd.

My personal and professional background is rooted in agriculture, originating on my grandparent’s dairy farm in western NC. Over the course of nearly 16 years, my career has evolved into professional development training for college students pursuing agricultural careers. Along the way, my career has included developing close working relationships with key players across the agricultural industry. My career has taken me across the country and in several forms, but I sincerely look forward to “returning to the field,” so to speak, back to my roots, to serve the farmer.

As we move into the Fall, harvest season is also ahead, which is the “time to pluck up that which is planted.” Ecclesiastes 3:2. I look forward to spending time on the road this Fall as we harvest the 110,000 acres of peanuts planted in North Carolina. It is also a season of new leadership; in addition to myself, as the new CEO, we will elect new board members and an executive committee during our annual meeting in September. Together, this new leadership will see continued evolution in our industry. A few topics that will keep us busy include; continued pressure on trade barriers for peanuts, a new Farm Bill in 2023, changes in state and national political leadership, research to combat climate and disease stress on peanuts, ensuring the sustainability of our crop, exploring advancements in allergy research and staying at the forefront of the ever-changing consumer mindset. There is much to do, and I am thrilled to be in this role, representing the growers of North Carolina as we embark on the future. I wish you all a safe and successful harvest season, and I hope to see you in September!

On a more personal note, I would like to thank the NC Peanut Growers Asso-
Eanut harvest season is fast approaching. Now is the time to start making preparations for a successful harvest. Unlike some other machines and implements used on the farm; tractors, tillage, planters and sprayers, peanut harvest equipment is not used for any other purpose. That means it may not have been moved since last fall’s harvest. So, what does it take to get ready to harvest?

How well did the digger-shaker-inverter work at the end of last harvest season? Did you notice something that needed attention and you planned to take care of it before the next use? Well, the time is now. The digger-shaker-inverter, as its name implies, has three key functions. First, it must dig the pods from the ground. This requires a sharp blade that has not worn away. Some farmers like to start each season with a new set of blades. Others keep track of the acres of use and anticipate how many more acres of use they have. How long a set of blades will last depends on several things. First, what is the nature of the soil? Some soils are more abrasive than others. What depth are you plowing? What speed are you plowing with? These factors can affect blade wear. What kind of blade are you using? Are you using an OEM blade or one from a third party source? Some third party blades are very good. Some may not be quite as good. To function properly, the blade must be properly mounted (bevel up or down as applicable) and kept sharp. It must cut the tap root, not try to pull it out of the ground.

Digging speed is very important. Recent studies have indicated that digging losses can drastically increase if the ground speed exceeds 3 mph, lower in some cases. Optimum speed will vary based on vine and pod conditions. Keep a close eye on digging losses as you start digging. You don’t want to realize after all peanuts have been dug, that you were running too fast and lost too many peanuts.

Speed also plays and important role in the shaking phase of the operation. Shaking is where excess dirt is removed from the vine and is also influenced by soil type and soil moisture level. Shaking aggressiveness is controlled by the chain speed and the roller or other mechanism used to agitate the chain as it travels up the frame. Older digger models use two sets of roller chain with the shaker bars attached to them. Newer diggers use belts to replace the roller chains and have the shaker bars attached to the belts. Regardless of
which you have, digger chain speed should be set with respect to ground speed. Excessive chain speed relative to ground speed can cause excessive pod losses. Likewise, if the chain speed is too slow, losses can occur. The teeth on the chain should be smooth and not contain any hooks or burrs that could catch the vines and prevent them from releasing into the inverter. If the vines do not release cleanly, the result will be wrapping around the chain. Thoroughly inspect the chain and grind off any rough areas on the teeth that could catch the vines. If the teeth are too badly worn, you may have to replace some of the bars on the chain or replace the digger chain and bars entirely.

Inverting the vines is the final step for the digger-shaker-inverter implement. In this step the vines must be inverted so that the pods are resting on the vines and exposed to sun and air for curing. A well-formed windrow is the one that insures the best curing potential with minimum losses in the inversion process. This is controlled by the shape and placement of the inversion rods on the implement. Compare your rod placement to the chart provided by the manufacturer for your make and model of implement. You can’t compare inversion rod settings correctly by comparing one implement to another. If they are different makes or even different models of the same manufacturer, the rod placement could be different. The surface of the inversion rod should be smooth and free of any damaged sections that can impede the flow of the vines through the rods. Likewise, check the kicker wheels if they are used on your digger. The kicker wheel should help the vines move through the rods. If the vines do not flow well, the kicker wheels may rake peanuts off the vines.

The final key to successful digging is the operator of the implement. To work effectively, the driver must be sure the implement is properly positioned over the row. This can be challenging when you have a lush and dense vine condition. The center of the row is not easy to see. If you used a tractor with automatic steering to plant your field, you can certainly use automatic steering for digging. The key is to receive an accurate correction signal source, for the GNSS system on the tractor, when the field was planted and when the field is being harvested. Studies have shown that using automatic steering with a high accuracy GNSS and correction source for planting and digging peanuts can add as much as 200 to 400 pounds per acre to the net harvest. Results on any individual farm will depend on the quality of the equipment and the condition of the crop.

The second phase of harvesting is the peanut combine. Once again, this is a piece of equipment that is not used for any other purpose. If you made notes at harvest last year about something you needed to check out on the peanut combine, now is the time to do it. The combine has to pick up peanuts, vines and all, from the windrow, thresh the pods from the vines, separate the pods from the vines, clean the peanuts and store them in the hopper until you are ready to dump them into the curing trailer or dump trailer.

Speed is important for the peanut combine or picker just as it was for the digger. If you drive too fast, you risk losing peanuts at the pickup head. Driving too slow for the header speed can also cause losses as the peanut vines are snatched into the combine. Driving too slow also causes you to lose productivity or the acres you can cover per hour or per day. Proper speed is dictated by the crop. Set your speed for the crop conditions and make sure the header is synchronized to your ground speed.

Thresholding is where the pods are removed from the vines. Many peanut pickers have multiple threshing adjustments, some have relatively few. The key is that you should thresh aggressively enough to remove the pods from the vines, but not so aggressively that the vines are torn into smaller pieces which can find their way into the hopper. Bear in mind that vine conditions can vary from day to day and often can vary throughout the day. Constantly monitor the threshing action of the picker to insure best results.

Separation (pods from vines) and cleaning (removing trash, pops and harvest debris from the pods) are key steps to a quality harvest. It is best to monitor the crop quality as it goes into the hopper or from the hopper to the trailers to insure everything is working well. On the one hand, excessive trash and debris in the hopper could be over aggressive threshing or poor cleaning. If you have an excessive amount of good peanuts laying on top of the ground behind the combine, you could be looking at an indication of too much cleaning air resulting in the pods blown out of the picker. Refer to your operator manual for the picker for recommended settings and ways to make adjustments. Then fine tune the machine to match your harvest conditions. Bear in mind the combine manufacturers are building machines to cover the range of crops and conditions throughout the peanut belt. It is up to the farmer or operator to adjust for the specific conditions found on any given farm.

Harvesting peanuts is different from any other crop. It has unique challenges and conditions that the equipment and the equipment operators must adapt to. Start early by making sure your field equipment is ready for the harvest season. Time spent in harvest preparation will pay dividends during actual harvest in the field. Once harvesting is underway, constantly monitor the performance of the equipment. Last year’s perfect setting may or may not be what you need this year. Be prepared to fine tune where needed. Finally, when harvesting is complete, make notes on what you need to focus on for the following year. If you have identified things that need to be repaired or replaced, do so in a timely manner. You don’t want to wait until the last day before you are ready to harvest the next crop. You may not have time to do it by then. I hope you all have a safe and successful harvest.
A Milestone Achieved

Monday, September 20, 1971

For those of you who had been born before this date, think back to what you may have been doing that day. I was in high school, and enjoying my first year with a driver’s license. For one young lady from the Holland/South Quay area of Suffolk it was her first day at a new job. Queen E Holland began work with Peanut Growers Cooperative Marketing Association (PGCMA) nearly 50 years ago and will celebrate her anniversary very soon in the same office where she started.

PGCMA was one of three grower marketing associations (the other two were in Texas and Georgia) responsible for the administration of the peanut program through contract with USDA from the 1960’s until the program’s change in 2002. This administrative function involved peanut production from Virginia southward to the central part of South Carolina. Since 2002, PGCMA has taken on new responsibilities and added the Virginia Peanut Growers Association to the office mix. Needless to say, a lot of peanut history has taken place within these walls, and Queen has been around through most of it.

Three managers have been in place at PGCMA since its inception. Numerous employees have come and gone from a work staff which at one time numbered over 10. Countless phone calls have been answered and letters typed. Hundreds of farmers have entered through the building’s doors for meetings, visits, or for any number of reasons. Through it all, Queen has come to work every day and continues to do so. This is not intended to be a send-off. It instead is a recognition of the years of service by a devoted individual to a multi-faceted agricultural organization.

It also is a THANK YOU. Many employers do not get the opportunity to wish an employee Happy Anniversary for 50 years of service so it is a milestone. I know many of you may want to say your own “thank you”, so please feel free do so. You know where to find her.

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Peanut supplies are very tight and in some cases, practically nonexistent. With national planted peanut acres at essentially the same level as last year, and with consumption continuing to increase, supplies will not rebound immediately. The price of competing commodities will have a role to play in this, but I think we are in for a few years of better peanut contracts compared to our streak of $450 years. I know you welcome this along with getting some relief price-wise on the other crops your raise as long as a lid is kept on expenses.

You have read in the last couple of issues of the VC Peanut News that Bob Sutter is retiring. Bob spent his entire time with the NC Peanut Growers Association serving as ex-officio on our PGCMA Board. In honor of these years and the work Bob has put in for the benefit of all of our region’s growers, PGCMA has established a scholarship at NC State in his honor which will benefit a student in the 2 year ag associate degree program. If you have a son or daughter interested in the 2 year program at NC State, please know that this opportunity is available. We have many VC area peanut farmers who have completed this program, and I am sure more will follow.

Best of luck with this crop. We need a good one!
Today is July 21 and I have just observed the first incidence of Sclerotinia blight in my plots. Depending on the weather, disease pressure may be very different in mid-late August. Based on the disease pressure you see in August, there are still some decisions that need to be made in regard to peanut disease management prior to harvest.

**What to spray?**

In mid-August until harvest, few options are available to control peanut diseases. Using a fungicide is really one of the last lines of defense against diseases in the late-season. Leaf spot pressure can be pretty high late in the season and can cause considerable defoliation and yield loss prior to digging if left unchecked. Most peanut leaf spot fungicides have a preharvest interval (PHI) of 14 days so there’s still time to protect against peanut leaf spot with a fungicide. Late in the year, most of the leaf spot sprays have been applied and growers are really just trying to prevent defoliation until harvest. Chlorothalonil products (Bravo, Echo, Equus and others) are leaned on heavily for late season applications because: a) chlorothalonil remains very effective against peanut leaf spot; and b) the mode of action (MOA) is multisite (FRAC code M) and helps reduce resistance development in the leaf spot pathogens to single site MOA fungicides in FRAC groups 3, 7 and 11. So chlorothalonil helps protect the active life of other leaf spot fungicides that may provide longer protection against leaf spot earlier in the season. If you are behind in preventive leaf spot applications and leaf spot is evident with some defoliation, an aggressive treatment may help to slow disease until digging. Tank mix chlorothalonil with a partner such as Topsin, Microthiol Disperss or Provost Silver. These tank-mixes can add to efficacy against leaf spot without adding too much additional risk of fungicide resistance development. Avoid using fungicides in FRAC group 7 and 11 late-season as this exposes those chemistries that are at a higher risk of fungicide resistance development and their activity against leaf spot is less effective than other chemistries when applied to established epidemics.

Late applications for southern stem rot and Sclerotinia blight can be trickier than those for leaf spot as some of the most effective products have PHIs that are 30 days or more (Convoy, Excalia and Omega 500). Depending on peanut degree days to maturity, you may be able to squeeze in an application in mid-late August and still be outside of the PHI for these products. Late in the game growers are tempted to use lower rates of these products (sometimes below labeled rates) to reduce costs so close to harvest, but low rates (especially below labeled rates) either provide little to no efficacy which is actually less cost-effective than using higher, labeled rates. Tebuconazole (Folicur) can provide additional control of southern stem rot when tank-mixed with a late leaf spot spray 14 days before harvest.

**Should I dig early to avoid losses to disease?**

This is a tough question for anyone. In most cases it’s best to dig peanuts based on maturity according to the hull-scrape or pod-blast test. However, if defoliation from leaf spot or web blotch is severe or if southern stem rot or Sclerotinia blight is greater than 50%, digging earlier than planned may prevent excessive digging losses.

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**Peanut Leadership Academy Class XII 2021-2023**

As we say goodbye to our 2018-2020 Peanut Leadership class, we welcome peanut farmers in Virginia, North Carolina and South Carolina to get involved. The Peanut Leadership Academy is a cooperative effort between Syngenta Crop Protection, the American Peanut Shellers Association and grower organizations. This is an opportunity to network with other peanut farmers in the peanut belt, develop and improve leadership skills. Class XII of the program is scheduled to begin in December 2021.

If you are interested in participating in Class XII, I encourage you to reach out to Marianne Catalano, Dell Cotton or Ashley Collins to learn more.

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David B. Langston, Jr.
Professor and Extension Plant Pathologist
Tidewater Agricultural Research and Extension Center

Pictured is the PLA Graduating Class in New Orleans
With half the year behind us, we begin to enter the home stretch for the peanut season. Growing conditions have been mostly favorable thus far, with popup showers visiting with a fairly forgiving frequency. Crop condition and yield potential across both dryland and irrigated fields look good. Still, we are not off the hook yet, and we look to tempered conditions during harvest to help move the potential for a hearty yield to a tangible one.

As the season grows long in the tooth, maintaining timely fungicide protection continues to be important. As leaf spot disease advances development and if application timeliness is impacted by weather, leaf spot can start to get a foothold in the canopy. The overall goal still remains protection and preservation of plant health, and so while we are not necessarily targeting a sterile field with zero lesions, we likewise aim to keep it in check and limit the spread of disease. The data shared here is from one year of an irrigated field trial with Bailey in Blackville, 2020, where we allowed leaf spot to start to develop until the field reached approximately 10% of peanut leaflets with lesions on them. We then applied fungicides two times each with each application spaced about 14 days apart. The entire field then received a Bravo cover spray another two weeks after the second fungicide application. Here we looked at several fungicide combinations, many including mixtures with sulfur in the form of Microthiol Disperss at the rate of 3.75 lb/A. For context, the nontreated check had about 60% defoliation by September 22, 119 DAP. Defoliation at the end of the season (129 DAP) was significantly reduced for each of Headline, Lucento, Tebuconazole, and Topsis treatments when Microthiol Disperss was tank mixed and applied with them. Reductions in defoliation ranged from 27% (Headline) to 34% (Lucento or Topsis) to 52% (Tebuconazole). While Topsis alone did not contribute an independently effective amount of control, Topsis + Bravo numerically improved control relative to Bravo by itself, and Topsis + Bravo was significantly better than Topsis + sulfur. By itself, the sulfur did not contribute much in the way of leaf spot protection, however, it is still intriguing to see how it can restore efficacy to something like Tebuconazole which by itself has lost efficacy going about 15 years back. When we factor in the yield and treatment cost for each of these programs, the treatment with the greatest return above the nontreated check was Bravo + Topsis, with runners up Tebuconazole + sulfur, Bravo alone, and Lucento. This being one year of data tempers the consideration of these results, as year to year variability can make a meaningful difference.

For the second test with the dark green bars, this was a dryland test planted to Emery, also one year of data. This was conducted similar to the one mentioned above. A few of the interesting results here included the three-way mix of Aproach Prima + Topsis + sulfur showing good efficacy, and the comparable benefit seen with different sulfur formulations when applied with Provost Silver. This included a liquid formulation, THAT Flowable Sulfur. The varying sulfur formulations were applied to deliver an equivalent elemental sulfur rate of 3 lb/A (e.g., = 3.75 lb/A Microthiol Disperss). Yield was not collected from this trial.

Strategic use of our plant protection products, be they new or old, can help more of these chemistries stay in the game as effective tools longer and stave off development of resistance.
PEANUTS & METABOLIC SYNDROME

IN THE FIRST STUDY OF ITS KIND, Harvard researchers have found that eating just 2 ounces of peanuts each day can help not only reduce the risk of metabolic syndrome — it may actually help reverse it!

WHAT IS METABOLIC SYNDROME?

Affecting about 1 in 5 adults, metabolic syndrome is a group of factors that increase the risk of developing two major types of disease: cardiovascular disease and type 2 diabetes.

How serious is metabolic syndrome?

It can be life-altering. A person living with metabolic syndrome is 5 times as likely to develop type 2 diabetes, and 2 times as likely to develop cardiovascular disease within 10 years.

THE STUDY

Published by the American Journal of Clinical Nutrition, the results of the 224-person study showed those with metabolic syndrome who ate 2 servings of lightly salted peanuts daily for 12 weeks were more than 2 times as likely to reverse their condition. That means that in just 2 daily ounces (or about 2 handfuls) of peanuts, you could double your likelihood of reversing this harmful risk factor from your life. And even if you don’t currently have metabolic syndrome? Peanut consumption may help reduce risk of developing it.

USING FOOD AS MEDICINE

Visit PeanutInstitute.com for more details.

This latest study adds evidence to the growing view that certain foods, especially those with an abundance of beneficial nutrients like peanuts, can be thought of as medicine. That’s because peanuts contain a variety of antioxidants, vitamins, minerals and other compounds that work together to promote our overall health and wellbeing.
There’s a saying that goes back as far as I can remember and it goes something like “experience is the best teacher”. Most of us have observed situations in our lives when that was indeed true. Seeing it happen firsthand often has much more of an impact than reading about it.

Each and every year for the past 40 years I have planted and treated plots in a variety of crops to evaluate various programs to manage insect pests. Many of these trials have been planted on research stations, but more of them have been planted on private farms and property. The purpose and intent is to evaluate programs that I will eventually recommend under “real world” conditions so I can confidently discuss them with growers. Over time, usually two or more years, our confidence grows and we understand how to use products and practices in a cost-effective manner. All of my colleagues including David Jordan, also participate in these trials across the state to provide critical information to growers.

One question I am often asked is about the number of times we repeat these trials over the years. Sometimes, we keep running the same studies for many years. Why? The main reason is so we have confidence in product performance over a wide range of weather conditions. Let’s look at the past few springs and how completely different they were in terms of temperatures and rainfall. Products can and do perform differently under varying weather conditions and we need to have a good understanding of that. Additionally, we can see different performances under different soil types, production practices, cultivars, and so on. Over time we develop a good understanding of how consistent a product performs year after year and how it performs under extreme weather conditions. This is very important information to know.

Another question I get, often at field days, is why we replicate. That is a good question and it has a good answer. The short answer is so we can have confidence in our findings by making sure we are truly measuring the treatment effect and not the field location impact. By that, I mean that no field is consistent from one end to the other. Soil type varies, drainage varies and most importantly, pest pressure can vary. Pest pressure can be more serious along the field edges or be worse in a certain part of the field due to prevailing winds or previous cropping history. Rarely is a pest problem consistent from one end of the field to the other end.

What can and does happen is that the pest pressure is not consistent across the field and when we measure the impact of the treatment, we see a greater impact just from the uneven distribution of the pest in the field. This is most commonly observed when we split a field in half and treat one half and leave the other half untreated. This approach would be fine if both halves of the field had equal pest pressure, but there’s a good chance that will not be the case.

In our research and demonstration trials, we typically replicate or repeat our plots throughout the field multiple times. This increases the likelihood that across the replicates we are more accurately measuring the “average” pest population. Such an approach is not practical for most growers and obviously just splitting the field in half is easy to do.

One approach growers can take is to apply treatments in strips (any number of rows that matches up with your equipment) across the field and to do this multiple times so you essentially have “replicates” of the treatments across the field and thus measure the impact of the treatment on the pest populations more accurately. It takes more work, but the results you obtain will be a better indicator of product performance (most of the time) than simply splitting the field in half.

We encourage growers to evaluate products under their own field conditions. Obviously, we try to test products under a wide range of locations and conditions, but it is not practical to do this everywhere. However, with a bit of planning in the winter, you can certainly set up your own trials to help you make better decisions specific to your own fields. This information can really give you a competitive advantage in your production.

We feel very confident in our recommendations because we have conducted a lot of trials and collected a lot of data to support product use. However, a third question that is very common is about why products fail. Products can “fail”
Virginia News

Thomas R. Cotton, Jr.
Executive Secretary
Virginia Peanut Growers Association

With an estimated 26,000 acres or so planted in our state this year, there are high hopes for a good crop after all of the issues of last year. As we look back on last year, we for the most part made the yields but other issues caused it to be a troublesome season. As I said, the yields were there. We averaged 4284 pounds per acre which followed the 4578 pounds per acre produced in 2019. In each of the last 4 years Virginia has averaged well over 4000 pounds per acre. In fact, the 4 year average is a bit over 4400 pounds per acre, a figure to be very proud of. With the good yields last year came some bad unfortunately.

Thomas R. Cotton, Jr.
Executive Secretary
Virginia Peanut Growers Association

Drying costs were up as peanuts would not dry in the field. Last year was a good reminder that you cannot farm peanuts in our state if you harvest in November. Related to the harvest issues was the fact that the crop would never get ready and had little size to it. Try to find some larger kernels in the marketplace now – it is impossible.

Another factor in product performance can be the weather. We have a lot of good pesticides available to us in peanuts and most of them provide amazing results. However, they cannot perform miracles. Under extreme weather conditions, product performance may not be at the level we hoped for and you really can’t blame the product. I know over the past 3 years we have seen great variability at planting time in the temperatures and soil moisture levels. This has produced very different results with at planting insecticide performance. That is to be expected given the variable weather.

I encourage you to do some of your own simple tests and evaluations each year so you can take our recommendations from NC State (and any other university for that matter) and customize them to best fit your needs.

Williams Re-Elected President of Virginia Peanut Growers Association

Rich Williams of Suffolk was re-elected President of the Virginia Peanut Growers Association at their meeting held in late June. Rich raises corn, cotton, soybeans, and peanuts in the Kings Fork area of Suffolk. Rich is active in Farm Bureau.

Re-elected as Vice-President was Wesley Barnes of Southampton County. Dell Cotton was re-elected Secretary/Treasurer.
Grow it Yourself!

Join the #GrowPeanuts campaign, share your progress and stay tuned for more GIY themed activations to engage millennials and Gen Z on NationalPeanutBoard.org

National Peanut Board®
Peanut Maturity at the end of July 2021 in Virginia

My program technician, Frank Bryant, took me to a peanut field this morning. He was concerned with the plants being not dark green, but somehow yellowish, in that particular field. We wanted to determine if it was nitrogen or manganese that the plants needed. We pooled 3-4 plants from two locations in the middle of the field, washed the roots from the dirt, and observed the nodules. Indeed, some plants had a fewer number of nodules (Fig. 1) than I would have expected at 80 days after planting (Fig. 2), but probably not alarming to call for a nitrogen application before we apply the second shot of manganese, like we always do. There were clear manganese symptoms on the freshly developed leaves, and we only applied the first shot last week.

But what caught my attention more than the nodules was the pods. The field in question has ‘Walton’ cultivar and was planted on May 3rd, 2021. While the majority of pods either did not have or had seed sizes according with the beginning seed growth stage, which is normal for this point in time (Fig. 3); some pods had the seeds almost fully developed inside the hulls (Fig. 4). I counted and eat 3 such close to fully developed seeds on one plant. Is this year an early maturing season for peanut in Virginia? It looks like it; and I am not surprised given the numerous days with high temperatures in May and June and, for most locations, with plentiful moisture in July. According to the Peanut-Cotton Infonet (Peanut - Cotton InfoNet (vt.edu), July 22 marked the accumulation of 1424 heat units (H) for peanut in Suffolk, 1397 in Capron, 1477 in Skipper, and 1309 in Waverly, VA. With a daily average accumulation of 25 HU and 9 days left for this month, on August 1st, in most locations in Virginia peanut will exceed the 1600 F received by the crop by the end of July, last year. So, let’s keep a vigilant eye on the maturity this year, folks!

Figure 1. Peanut plants with a fewer number of nodules on the tap and lateral roots. Cultivar is ‘Walton’, planted on May 3, 2021.

Figure 2. Peanut plants with normal number of nodules on the tap and lateral roots. Cultivar is ‘Walton’, planted on May 3, 2021.

Figure 3. Pod and seed size corresponding to the beginning seed stage, which is normal for this time. Cultivar is ‘Walton’, planted on May 3, 2021.

Figure 4. Pod and seed size corresponding to the full seed stage, which indicates an early maturing season. Cultivar is ‘Walton’, planted on May 3, 2021.
That’s a strange title for my fall column isn’t it? I think so too. In most of my columns I jump right into the points I’d like to make relative to peanut production (Although someone once told me, “I enjoy reading your columns but when I get to the end I’m not sure what you were trying to tell me.”) This column may bring this sentiment on steroids. I’ll get to a point about peanuts towards the end so I hope you’ll hang in there.

A month or so ago we had our first in-person, peanut agent in-service training session in the field. The last time we got together, other than by Zoom was in January 2020. It was really good to actually see people in the field and talk about life and peanuts. In the process I noticed that quite a few of the agents were wearing the EXTRATUF® Ankle Deck Boot. This style of footwear seems to be on the rise. And it’s not only agents (some in their twenties.) My dad has a pair (and he is moving into his mid-80s.) I think I’ll get a pair of these, but I’ll need to wear out my current pair of leather shoes (the ones I got in 2016.) But the EXTRATUF® Ankle Deck Boot worn by agents reminded me of a pair of these I created over a decade ago. I had an old pair of knee boots (that were created from a pair of waders) I used for hunting.

Eventually, the upper portion sprung a leak (most likely caused by a sharp reed on a deer path) and I removed that section and converted it to what we now know of as the XTRATUF® Ankle Deck Boot. I could quickly slide my feet in and out of these boots but they didn’t protect me from seed ticks or red bugs. Ultimately, something finally penetrated the bottom of one of the boots making sure a dew in the morning would get my foot wet.

I gave these boots a name long before the XTRATUF® Ankle Deck Boot came our way, and eventually wrote in the name with a Sharpie on those boots for fun – Tharlton Boot™. Apparently I should have turned in a patent and started a business. My dad shared a story about Mr. Tharlton Lawrence and his boots (I’d already heard the story about my dad begging Tharlton, who worked with my granddad Henry, to let him “drive” the mule while drains were made in peanut fields in the early 1950s.) Tharlton Lawrence was one of the key figures in my dad’s and granddad’s life on a farm in the lower end of Chowan County. I’m not sure if you have ever read the book An Hour Before Sunrise by Jimmy Carter, but I suspect my granddad and Tharlton (who farmed together) and the next generation raised by these two men along with Splint and Mildred (Popeye, Diddle, Calhoun, and Weasel) probably had similar experiences. I can remember meeting Tharlton only once. And I only remember being around my granddad Henry (who I called Dee Deet) just a few times. But stories about folks from that period of time grow in importance to me each day, in ways one just can’t imagine as a youngster.

The Tharlton Boot™ got me thinking about the foundation established by the previous generation for many of us to build on. The “table” was set for me. I just had to work hard and steady (and not even hard all of the time) to have a reasonable chance at success in our society. I am thankful for many people “setting the table” for me (and cleaning off the surface when needed) along the way. But many others in our society have not had the same “table” set for them. I need to remember that – it’s been much harder for some of the others in our society to succeed no matter how hard they work. And along with that realization, I have a responsibility to recognize the challenges people face and reach out in meaningful ways to help.

Helping the next generation build on the foundation of the previous generation is a key, and farmers know this – there is a deep desire for the farm to be as good or better for the next generation. And too, there are many examples of when the current generation needs some outside help so they can pass along a fruitful foundation to their next generation. These are messages I take from my Tharlton Boots™ and will be reminded of in the EXTRATUF® Ankle Deck Boot when I see them around. Bob Sutter comes to mind when a think of visionary people who build a foundation for the next generation. Thank you a million times over Bob!

So how does all of this culminate
into a message about peanuts? At this time of the year, I think of disease control and how our fungicide programs protect peanuts from leaf spot. As we move toward the end of the season, we hope the fungicide programs we put in place in early July will keep peanut plants healthy. We also know that what we did earlier in the season can only go so far - we need to stay the course through September. And depending on weather patterns, perhaps even into early October. One of our big questions is whether or not the fall of 2021 will be like 2018 (warm well into October) or 2020 (cool in late September and October.) Keeping our peanuts healthy gives us the greatest flexibility in digging and allows us to let peanuts reach optimum maturity. When plants are healthy they can stay in the field longer with less pod shed.

We certainly can’t control weather patterns in the fall but we can control the effectiveness, timeliness and duration of our fungicide sprays. The Tharlton Boots™ I own had a long life before their second and third comings. Maybe the first life (a set of waders) and then the second life (a boot that protects up to the knee) represent our fungicide programs in July and August. But even after these lives the manifestation in the form of the Tharlton Boot™ has a lot to offer. The parallel is an effective fungicide program through September. Protection provided by those last sprays can bring the peanut crop across the finish line in great shape. This serves two purposes. We have the best chance at having a high-yielding peanut crop on the first hand. And as we think long-term, we maintain sustainability of our fungicides through effective resistance management. I could go on more about the part of the boot we know as the Tharlton Boot™. Interestingly, it’s the part of the boot that was in place at the beginning (a pair of waders) that traveled a long road as a knee boot and finally made it to the form of an “old school” EXTATUF® Ankle Deck Boot. Transitions through these phases were challenging, and in the process my feet got wet. But I couldn’t argue for a second about the effectiveness and longevity of this pair of boots when I was willing to adjust along the way (I think my grandparents would be proud of my decisions to get the most out of those boots.) The last phase, the Tharlton Boot™ was present even when other parts of the boot wore out. Those boots as a whole allowed me to enjoy duck hunting (as waders) and deer hunting (as knee boots.) I wasn’t very good at either but the boots helped me get to the right place. Maybe that’s like some of our newer and more effective fungicides. They have enabled us to enjoy higher yields but they carry risk of evolved resistance in our pathogens. But then again, I will always know what the foundation of the boot is. Sounds a lot like chlorothalonil and its role from start to finish in our fungicide programs, especially as a resistance management tool at the end of the season.
The honey bee (*Apis mellifera*) is a valuable pollinator, contributing billions annually to the US economy. Bee colony decline has captured the attention of private citizens, regulatory groups, and legislators alike. Lack of available forage in the landscape is one of the major stressors to colony health. To provide targeted and effective aid to hungry bees, we need a deeper understanding of pollinator foraging within a landscape. The behavior of bees within agricultural settings, particularly in self-pollinating crops such as peanut, is poorly understood. In cooperation with the Couvillon and Schürch labs at Virginia Tech, my program in southeastern Virginia conducted a two-year project on bee foraging in a landscape where peanut fields are abundant.

Honey bees use a recruitment behavior called the waggle dance to communicate the location of food, usually nectar or pollen, to their nestmates. Nestmates, in turn, interpret the waggle dance to locate the food source, which they can then forage on themselves. The dance is visible and can be observed and decoded by scientists to determine how, where, and when the bee is collecting food. We used special observation hives, video cameras, and a team of dedicated student to decode 3,459 dances in 2018 and 2019. We used maps of the surrounding landscape and special statistical software to determine where bees foraged.

Our results were surprising! The percentage of foraging in peanut during bloom periods was 6.9% and 18.6% in 2018 and 2019, respectively. Pretty impressive considering that peanut comprised 5.5% and 6.1% of the landscape in these years. We are currently working to determine what resource bees foraged on in these fields (pollen, nectar, or even flowering weeds). Although bees risk pesticide exposure in these settings, they clearly are deriving nutritional benefit from peanut fields. Agrochemicals, including insecticides, are essential for protecting our food supply. I encourage landowners, farmers, and beekeepers to communicate openly about placement of hives and pesticide usage to maximize the benefits to honey bee hives. Also, scout fields before making insecticide application decisions as other bee species utilize these fields (see photo below). Please contact me with your questions and or concerns.
We installed two billboards one is located in Hendersonville on Interstate I-26 and the second billboard located on Interstate I-40. Both billboards are strategically placed for those to see while traveling to Asheville and located in Western North Carolina.

This billboard is located on Interstate I-385 headed into downtown Greenville.

We installed two billboards one is located on highway 58 in Emporia and the other is located on highway 460 in Disputanta.
My peanut breeding predecessor at NC State, Dr. Tom Isleib, in a separate article, outlined the need for clear communication between extension specialists, county agents and growers and the plant breeder during the variety development process, rather than after the release of a breeding line. Often times, the contributions and insights of these groups can greatly influence the weight given to the traits of interest during selection and advancement. One of my first tasks upon inheriting the peanut program, was to establish a deep understanding of the breeding materials and their potential. In order to gain this knowledge, I compiled 10 years’ worth of NCSU peanut breeding data into a database visualization/resource in web-application form. The tool was developed to aid breeding efficiency and includes NCSU advanced trial information collected at three research stations (PBRS – Peanut Belt Research Station, Lewiston-Woodville, NC; UCPRS – Upper Coastal Plains Research Station, Rocky Mount, NC; BBTRS – Border Belt Tobacco Research Station, Whiteville, NC) and the comprehensive Virginia-Carolinas Peanut Variety and Quality Evaluation (PVQE) information derived from seven locations annually. In each of the sub-databases (NCSU or PVQE), many of the traits overlap; however, there are a few that are collected exclusively through NCSU trials e.g. diseases and roasting flavor, or PVQE trials e.g. fatty acid composition and blanchability. After the development of the application, it occurred to me that extension specialists, county agents and growers may be interested in learning more about future breeding lines and varieties in the pipeline prior to release too. For researchers, extension specialists and county agents, the figures that are produced can be readily downloaded and used in presentations, reports or training workshops. For the growers, the information might allow for adjustments in cultural practices and management and may provide a marginal income benefit.

The beta version of the application can be accessed using the following URL and credentials:
https://pbg-program.herokuapp.com/
Username: NCSU-Guest
Password: Peanut

Yes! This means you are now included in the exclusive peanut breeding club. In this application, you will find tabs linking to the aforementioned databases, for which you can toggle through varying traits of interest, breeding lines, testing locations and years of trials. Simply select a database (NCSU or PVQE) at the top of the page and a figure will auto-populate with default parameters. Using the control panel on the left, select traits, browse some of the current breeding lines (N14*** - N19***), add or drop locations and select a range of years to compute averages. In addition, hovering over a bar on the figure will reveal a third panel which includes the breeding line information, parentage, pedigree, fatty acid composition, trait value and number of trials used to calculate averages. In the second iteration of this application, post-hoc tests for significant mean differences (i.e. LSD, HSD, Dunnett’s) will be included. The application was developed using open-source programming and a freely available web development tool. I believe we’re only scratching the surface of the practical use of this application; yet, maybe this information shouldn’t be publically available. Please explore the application and provide feedback. If you find anything interesting, let me know. We’ll call it, “Plant Breeding by the Masses”. 
PEANUT BUTTER AND JELLY COOKIES

Ingredients
Cookies:  
1 cup peanut butter  
1/2 cup honey  
1 large egg  
3 cups old-fashioned oatmeal  
1 teaspoon baking soda

Filling:  
1/3 cup peanut butter  
1/3 cup strawberry preserves or jam

Instructions
1. Preheat oven to 350°F. Line two baking sheets with parchment paper and set aside.
2. In the bowl of an electric mixer fitted with the paddle attachment, beat 1 cup peanut butter with 1/2 cup honey until smooth. Beat in the egg until well combined. Add the oats and baking soda and beat on low speed until just combined.
3. Using a 1/2-ounce cookie scoop, drop heaping one-tablespoon sized portions of dough a few inches apart on the prepared baking sheets. Press the dough into a cookie shape. Using your thumb press a small indentation for the jelly. Top with ½ teaspoon jelly.
4. Bake cookies for 7-8 minutes or until they are set and just start to crack a bit on top. Let cool on cookie sheets for a few minutes before transferring to a wire rack to cool completely.
5. Melt peanut butter in microwave for 30 seconds. Drizzle cookie with melted peanut butter.

Prep time: 10 min  
Cook time: 9 min  
Makes 12 cookies

Calendar of Events

SC Peanut Field Day  
September 2, 2021: Edisto Research Center in Blackville, SC

PVQE Field Tours  
September 8, 2021: Tidewater AREC

NC Peanut Growers Annual Meeting/Peanut Field Day  
September 9, 2021: Lewiston-Woodville Research Station, Lewiston-Woodville, NC

Bluffton Boiled Peanut Festival  
September 11, 2021: downtown Bluffton, SC

PQVE Field Tours  
September 21, 2021: Slade Farm near Williamston, NC

Cooper River Bridge Run Health and Fitness Expo  
September 23 - 25, 2021: Charleston, SC

Virginia State Fair  
September 24 - October 3, 2021: Doswell, VA

South Carolina State Fair  
October 13 - 24, 2021: Columbia, SC

North Carolina State Fair  
October 14 - 24, 2021: Raleigh, NC