



## Greetings From Our Director

As a young(er) faculty member over 20 years ago, I distinctly remember that winter was a time for catching up and dare I say, getting ahead before the spring rush. You may also fondly remember those days when there were fewer meetings, emails, and information to wade through during the “slow season”. The winter of 2024-25 has been anything but slow and yet the faculty, staff and students at Tidewater AREC continue to provide valuable resources and information that directly (and positively) impacts our stakeholders.

As we begin to ramp up activities for the 2025 cropping season, Tidewater AREC is on pace to increase (for the 4th consecutive year) the number of research projects being conducted, research expenditures, number of graduate students enrolled, and research / Extension publications released to our stakeholders. Your support and feedback are critical to our continued success, and we appreciate each and every relationship that we have built within our community. While there is much uncertainty in the world today, our commitment to our stakeholders drives us to continually improve. *Ut Prosim!*

-Matthew

## In This Issue

- Upcoming Events
- Student & Staff Spotlights
- Around the AREC
- Updates & More!



**MATTHEW CHAPPELL,**  
**DIRECTOR**

# Join us!

## FOR 2025 AREC FIELD DAYS



Photo by Craig Newcomb for Virginia Tech.

Each year, Virginia Tech's 11 Agricultural Research and Extension Centers invite the public in for an in-depth look at the discoveries and practices propelling the future of agriculture, Virginia's largest private industry. Spread throughout the commonwealth, the Agricultural Research and Extension Centers (AREC) bring the expertise of Virginia Tech College of Agriculture and Life Sciences researchers directly into the communities they serve. Find a field day happening near you!

Read more here: <https://bit.ly/4hVaz35> 

Join us at the Tidewater AREC later this month for the Soil Fertility and Crop Nutrition Workshop and Cover Crop Field Tour! Presentation topics will include: row crop and soil fertility, plant nutrition, and cover crops (rotation, herbicides, benefits). We will also have equipment demonstrations of the Montag Dry Fertilizer Applicator and the Soil Warrior Strip-Till Implement.

## Soil Fertility and Crop Nutrition Workshop and Cover Crop Field Tour

March 21, 2025 • 8:00 AM - 4:45 PM

Free event open to farmers, industry, and government agencies!

- Lunch provided -

Please register:

<https://bit.ly/CoverCropFieldDay25>



  
TIDEWATER AGRICULTURAL  
RESEARCH AND EXTENSION CENTER  
VIRGINIA TECH

 **Virginia Cooperative Extension**  
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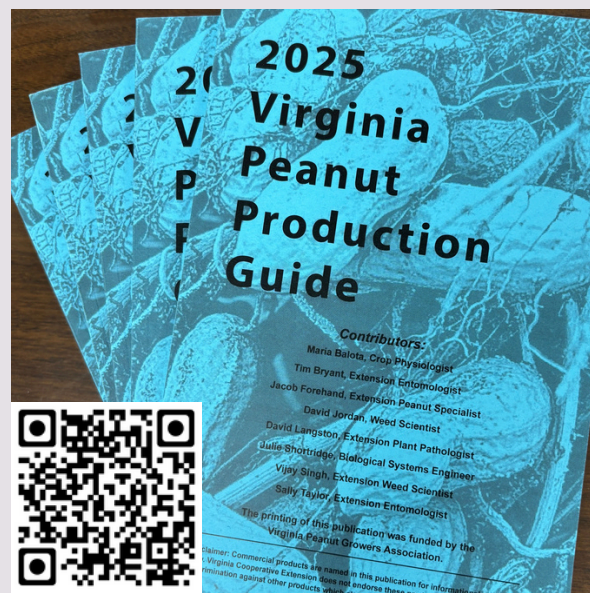


# 2025 PEANUT PRODUCTION MEETING

What a great turnout at the 2025 Virginia Peanut Production Meeting in Franklin, VA on February 12th! The Tidewater AREC team delivered the following updates:

- Dr. David Langston - *Peanut Disease Management*
- Ms. Linda Byrd-Masters - *Frost Advisory Demo*
- Dr. Tim Bryant - *Peanut Insect Pest Management*
- Dr. Hunter Frame - *Return of Nitrogen/Sulfur Fertilization on VA Peanuts*
- Mr. Jacob Forehand - *Peanut Variety Update*

Thank you to Virginia Peanut Growers Association, Virginia Cooperative Extension, all of the sponsors, and attendees! It was great to see everyone! **The 2025 Peanut Production Guide is available here: <https://bit.ly/PeanutProdGuide25>**





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# AGROCLIMATE VIEWER & PLANNER APP

NEW WEBTOOL!

## FROM THE DIGITAL AG TECHNOLOGIES LAB



### Overview



The Agroclimate Viewer & Planner App is an interactive web-based tool designed to help users monitor, forecast, and analyze agroclimatic conditions for their croplands. By leveraging Google Earth Engine (GEE), the application provides insights through satellite imagery, weather forecasts, soil data, and climate patterns. Users can draw field boundaries, select specific parameters, and generate visualizations to aid in informed agricultural decision-making.

### Key Features



- **Field Selection & Data Management:** Up to 5 fields per session.
- **Vegetation Index (VI) Analysis:** NDVI for crop health tracking.
- **Climatic Data Trends:** Field and soil climate, and water use trends.
- **Weather Forecasting:** 16-day hourly weather for crop planning.
- **Soil Data:** Composition, pH, and other characteristics down to 2 m.
- **Growing Degree Days (GDD):** For 45+ crops using temperature-based heat accumulation.



### Learn More

Explore the app: <https://datl-chandel.github.io/Agroclimate/>

Find YouTube user tutorials here: <https://www.youtube.com/@DATL.Chandel>



SCAN ME

Supported by: USDA, NIFA, NAPDC, Cotton Incorporated, Virginia Tech Tidewater Agricultural Research & Extension Center (TAREC), College of Agriculture and Life Sciences, and Department of Biological Systems Engineering.

✉ [abhilashchandel@vt.edu](mailto:abhilashchandel@vt.edu)

🌐 <https://datl-chandel.github.io/Agroclimate/>

# STUDENT SPOTLIGHT: C. BRANDT TATE



MARCH 2025

As a graduate student in the Virginia Tech College of Agriculture and Life Sciences, Tate is pursuing a Ph.D. in crop and soil environmental sciences at the Tidewater Agricultural Research and Extension Center (AREC) in southeast Virginia, where he works with the Field Crops Agronomy program under the direction of Hunter Frame, associate professor and field crops agronomist.



Passionate about integrating technology with science, Tate has a keen interest in geographic information systems (GIS), GPS, and precision ag techniques. In addition to using drones for data collection, Tate also utilizes the technology of handheld crop sensors to collect NDVI data – which measures how healthy and green plants are by analyzing the light they reflect – from research sites at five, six, and seven weeks after planting.



“Brandt was recruited for his GIS experience and knowledge to take the lead on developing a nitrogen prediction algorithm for Virginia cotton producers,” said Frame. “His passion is evident in everything he does and is why he is a leader among the research group.”

Read the full VT News article here: <https://bit.ly/3F17bFm>



Photos by Suzanne M. Pruitt.

## COTTON GROWERS ASSOCIATION ANNUAL MEETING

2025



Thank you to everyone involved with this year's Virginia Cotton Growers Association Annual Meeting on February 18th! Faculty from Tidewater AREC provided the following updates during afternoon presentations: *Insect Management in Cotton*, Dr. Tim Bryant; *Disease and Nematode Management Options in Virginia Cotton*, Dr. David Langston; *Managing High Yielding Cotton*, Dr. Hunter Frame. Presentation slides are available on our website: <https://bit.ly/CottonMtgPresentations>





Top row, left to right: Postdoctoral Research Associate Rahul Raman in the field; PVQE Technician Zoe Dunlow grading peanuts; Technician Kim Williams and friend in the swine unit at Tidewater AREC · Bottom row, left to right: Soybean Agronomist Carrie Ortel participates in a panel discussion at the Commodity Classic in Denver, CO; Technician Billy Taylor maintains equipment in preparation for the growing season; Professor Maria Balota works to cross-pollinate faba bean plants in the greenhouse at Tidewater AREC.

## STAFF SPOTLIGHT: LINDA BYRD-MASTERS

### Lead Technician, Plant Pathology

Linda Byrd-Masters first joined the Tidewater AREC in 1993 as part-time harvest help with the Plant Pathology department. This role transitioned into a full-time research & lab specialist position, shared between the Entomology and Swine departments. After a five-year leave to complete her undergraduate studies and teach, she returned to TAREC as a research technician for Plant Pathology. In addition to data collection and field tasks, one of the key responsibilities in this managerial role is maintaining six weather stations throughout southeast Virginia, which support the Peanut Cotton Infonet.

Linda earned her M.S. in Plant Science/Pest Management through Virginia Tech's OMALS program. She considers people the best part of her job, both at TAREC and in the agricultural community. Outside of work, you'll find Linda enjoying various outdoor activities, including being an active member of the Virginia Master Naturalist program, kayaking, camping, playing music, writing, and spending time on the beach in Hatteras with a good book.



Linda Byrd-Masters in the TAREC Plant Pathology Lab.



## ENTOMOLOGY NEEDS ASSESSMENT SURVEY

This survey will help us identify research needs, better understand how to communicate the results of that research with stakeholders, and demonstrate the value of Extension programs for Virginia farmers.

We appreciate your time and feedback:  
<https://bit.ly/3Zbf56L>



## SAVE THE DATE - JULY 15 -17 American Peanut Research and Education Society Annual Meeting in Richmond, VA

PEANUT GROWERS: WE NEED YOUR INPUT  
REGARDING A SPECIAL SESSION ON JULY 17!  
PLEASE TAKE OUR SHORT SURVEY:

[HTTPS://BIT.LY/APRESSURVEY](https://bit.ly/APRESSURVEY)



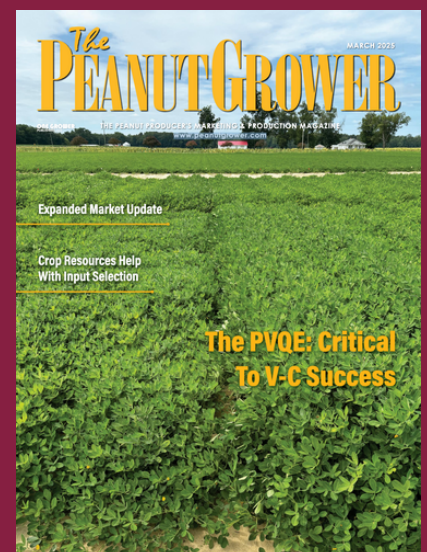
## THE PEANUT GROWER MAGAZINE: MARCH 2025 COVER STORY

### THE PVQE: CRITICAL TO V-C SUCCESS

Dating back to 1968, the Peanut Variety and Quality Evaluation program is still going strong in an effort to provide a premier peanut variety testing program specifically for the Virginia-Carolina region and producers. New at the helm of the program, Jacob Forehand, Virginia Extension peanut specialist, is bringing new ideas and a fresh approach to variety selection.

Read more in the March issue of Peanut Grower magazine:

<https://bit.ly/PVQEMarch>



# DID YOU KNOW?

Virginia Tech has 11 Agricultural Research and Extension Centers (ARECs) across Virginia which play a pivotal role in connecting the university to local communities around the state. Have you wondered what research and outreach is happening at ARECs across the state?

The AREC Seminar Series is a place to find out more about the research and Extension programs happening at ARECs across Virginia. The series aims to promote collaborations between the ARECs, with each seminar being recorded and shared.

<https://bit.ly/arecseries>



## RECENTLY PUBLISHED:

Batista da Silva, M., & Langston, D. (2024). New fungicide options for managing Sclerotinia blight of peanut. *Plant Health Progress*, (ja). <https://doi.org/10.1094/PHP-04-24-0036-RS>

Ortel, C., Lindsey, L.E., Casteel, S., Kandel, H., Nafziger, E., Ross, J., Matcham, E., Moseley, D., Preza Fontes, G. & Conley, S.P. (2025). Low soybean plant population: Is replanting necessary? *Crop, Forage, & Turfgrass Management*. <http://dx.doi.org/10.1002/cft2.70032>

Reiter, S., Romelczyk, S., Clarke, T., Doughty, H., Flanagan, R., Gunn, M., Jones, B., Jones, J., Jones, T., Longest, R., Pittman, T., Sedghi, N., Williams, M., Langston, D., & Ortel, C. (2025). *Virginia On-Farm Soybean Research*. Virginia Cooperative Extension. <https://bit.ly/3F9JGKp>

Aigner, B., Besancon, T., Bryant, T., Cahoon, C., Chandran, R., Currin, J., Day, E., Eastwood, G., Flessner, M., Frame, W., Frank, D., Higgins, D., Jordan, D., Koehler, A., Kuhar, T., Langston, D., Lingenfelter, D., Malone, S., Miller, K., Payne, K, Rashed, A., Reed, T., Singh, V., Taylor, S., VanGessel, M., Vollmer, K., Wallace, J., Wilson, J., Zeng, Y. (2025) *Field Crops Pest Management Guide*. Virginia Cooperative Extension. <https://www.pubs.ext.vt.edu/456/456-016/456-016.html>



## APPLY NOW!

- AGRICULTURAL SPECIALIST III
- LAB & RESEARCH SPECIALIST I



<https://bit.ly/4ifNJDa>

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