



VIRGINIA AGRICULTURAL EXPERIMENT STATION
EASTERN VIRGINIA AGRICULTURAL
RESEARCH AND EXTENSION CENTER
VIRGINIA TECH.

EASTERN VIRGINIA AREC NEWSLETTER

VOLUME IV, ISSUE III

December 2023

Dr. Joseph Oakes,
Superintendent



A busy fall at Eastern Virginia AREC has come and gone! Both small grain planting and soybean harvest were completed in early November. The link to the soybean OVT data is available on page 5 of this newsletter. With fall planting and harvest complete, we have completed the 2023 field season and are eagerly anticipating the 2024 spring growing season. We hope that everyone has a Merry Christmas and a wonderful holiday season!

-Joseph

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Research Spotlight

If you recall from our last newsletter research spotlight, we discussed a soil health test plot with the Virginia Biosolids Council. This plot was used to examine the impact of land application of biosolids and PFAS on soils. This research is part of a national PFAS study conducted by Dr. Ian Pepper at the University of Arizona. The half-acre test plot was divided into three treatments: a control and two sections in which DCWater's EQ product Bloom was applied at a low and high rate. This test was harvested in early October. The high rate of Bloom yielded significantly higher than the control or the low rate of application

High: 56 bu/ac A

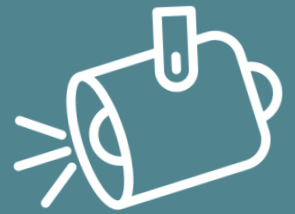
Low: 48 bu/ac B

Control: 42 bu/ac B

Throughout the growing season, soil samples were collected by the Hampton Roads Sanitation District (HRSD) and sent to University of Arizona for analysis and inclusion in the national PFAS study. A winter crop has now been planted in anticipation of using it again next year to examine the long-term effect of biosolids application and PFAS



USDA SCRI Grant Award



Eastern Virginia AREC is excited to be part of a research team at Virginia Tech that has recently been awarded a \$2.6 million USDA specialty crop research grant focusing on faba bean!

As part of the specialty crop research initiative, the focus of the study is to identify and further develop winter-hardy populations to complement the current commercial and certified organic production systems in the Mid-Atlantic. The long-term goal is the successful introduction of faba bean as a fall/winter crop with multiple nutritional, environmental, and economical benefits to make the cropping systems in this region more sustainable.

Faba bean research trials will start being grown at Eastern Virginia AREC in the fall of 2024 with the focus on optimizing agronomic practices for improved economics of commercial and certified organic faba bean production in the Mid-Atlantic. Research trials will determine optimum planting date, seeding rate, and row spacing, as well as weed control.

Virginia Tech faculty on the project include:

Maria Balota: PI—Tidewater AREC

Abhilash Chandel: Co-PI—Tidewater AREC

Alejandro Del Pozo-Valdivia: Co-PI—Hampton Roads AREC

David Haak: Co-PI—SPES

Doug Higgins: Co-PI—Eastern Shore AREC

Sean O’Keefe: Co-PI— FST

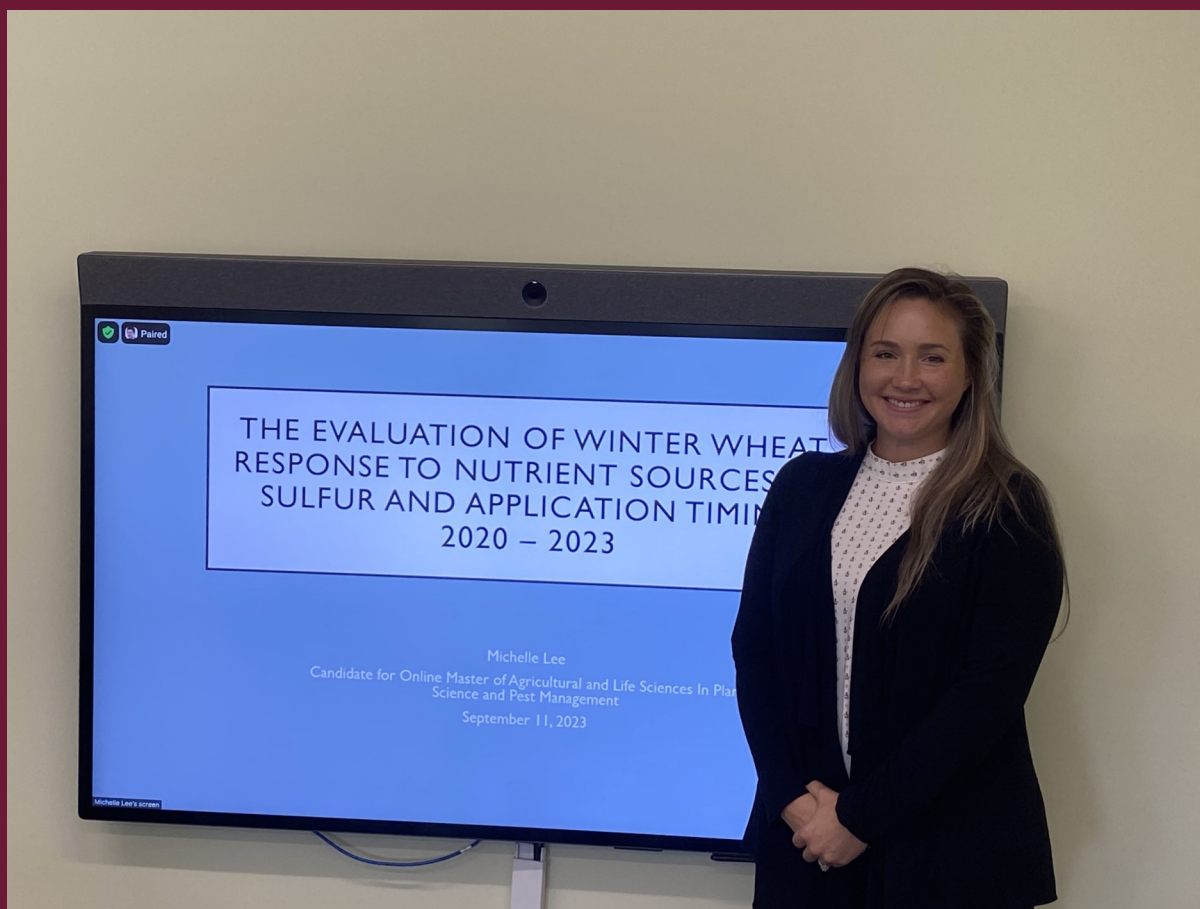
Joseph Oakes: Co-PI—Eastern Virginia AREC

Ford Ramsey: Co-PI—AAE

Renata Carniero: Co-PI—FST



Congratulations to EVAREC Agricultural Specialist Michelle Lee on successfully defending her Online Master's of Agriculture and Life Sciences degree!



Michelle's research project focused on the evaluation of winter wheat response to nutrient sources of sulfur and application. Click [here](#) to read her final report. Michelle will officially graduate with her OMALS degree in Blacksburg on Dec. 15.

Around the Center



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In late August, we enjoyed welcoming a group of Argentinian soybean growers and Evonik distributors to the center to discuss soybean research!





Recent Awards & Publications

Grants and Awards:

- Enhanced Mid-Atlantic System Sustainability through Development of High-Protein and Stress Tolerant Faba Bean for Winter Production. \$2,664,775. Maria Balota, Abhilash Chandel, Alejandro Del Pozo-Valdivia, David Haak, Doug Higgins, Sean O'Keefe, Joseph Oakes, Form Ramsey, Renata Carneiro. USDA National Institute of Food & Agriculture.

Publications:

- Johnson, Kellie; Drape, Tiffany; Oakes, Joseph; Simpson, Joseph; Brown, Ann; Westfall-Rudd, Donna M.; and Duncan, Susan (2023) "An Interdisciplinary Approach to Experiential Learning in Cyberbiosecurity and Agriculture Through Workforce Development," Journal of Cybersecurity Education, Research and Practice: Vol. 2024, Article 2. Available at: <https://digitalcommons.kennesaw.edu/jcerp/vol2024/iss1/2>

2023 Soybean OVT Data

- Data from the 2023 soybean Official Variety Trial is now available at Warsaw is now available. Click link below to access:

<https://bit.ly/WarsawSoybeanOVT>

Did you know??

Real-time weather conditions are available at Eastern VA AREC?

[EVAREC WeatherStem](#)

JOINUS!



COLLEGE OF AGRICULTURE AND LIFE SCIENCES
CENTER FOR ADVANCED
INNOVATION IN AGRICULTURE
VIRGINIA TECH.

Virginia Tech Center for Advanced Innovation in Agriculture Producer Listening Session focusing on Precision Ag/Technology in Grain Crops

WHEN: February 6, 2024
10:00-12:00 am

WHERE: Eastern VA AREC
Conference Room
2229 Menokin Road
Warsaw, VA 22572

CONTACT: Joseph Oakes
jcoakes@vt.edu
804-333-3485

Attendees will receive a free lunch
after the listening session as well as
shirts, hats, and other swag!

JOIN US TO DISCUSS PRACTICAL IMPLICATIONS,
LIMITATIONS & BARRIERS TO ADOPTION, AND PROVIDE
FEEDBACK TO TARGET FUTURE RESEARCH

Eastern Virginia AREC is a proud partner with the Center for Advanced Innovation in Agriculture (CAIA) within the College of Agriculture and Life Sciences. If you are a producer in Eastern Virginia with an interest in precision ag/technology, join us for a producer listening session to discuss practical implications, limitations & barriers to adoption to provide feedback to target future research.

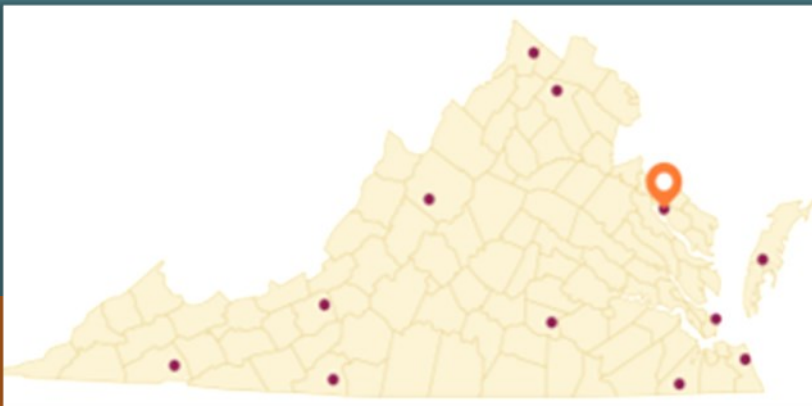


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Eastern Virginia AREC's mission is to serve Virginia's grain and soybean industries through research and educational programs leading to improved varieties and crop management practices. Our research objectives are to support the Virginia Tech soybean and small grain breeding programs, and to conduct agronomic research that contributes to economically and environmentally

A COLLABORATIVE NETWORK

The ARECs are a network of 11 centers strategically located throughout the state that emphasize the close working relationships between Virginia Agricultural Experiment Station, Virginia Cooperative Extension, and the industries they work with. The mission of the system is to engage in innovative, leading-edge research, to discover new scientific knowledge, and create and disseminate science-based applications that ensure the wise use of agricultural, natural, and



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(AREC)

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www.arec.vaes.vt.edu/arec/eastern-virginia.html