TIDEWATER
Agricultural Research and Extension Center

Maria Balota works with John Crumpler, a local farmer and member of the National Peanut Board, to identify the most productive peanut varieties with increased yield, disease-resistance, and high oleic fatty acid content for the region.

An ongoing project at the Tidewater AREC includes testing of the Virginia-type peanut elite lines in the pipeline for release in Virginia and the Carolinas. This is a joint effort between the AREC and North Carolina State University to provide growers in the Virginia-Carolina region with improved varieties.

This multi-state project, called Peanut Variety and Quality Evaluation, allows direct input from the entire peanut industry, including growers, shellers, and processors, to the development of varieties tailored for Virginia and the Carolinas. In this way, successful peanuts such as Bailey and Sugg have exceeded, by millions of dollars, the value of other cultivars since their release in 2008. The project, led by Maria Balota, is conducted across three states in collaboration with Jeff Dunne, a peanut breeder at North Carolina State University, and Daniel Anco, Clemson University's peanut specialist.

"Our most recent releases, Emery and Bailey II, not only have the high-yield potential and disease-resistance of Bailey, they also have oil composition with a slow oxidation rate, which means less rancidity and longer shelf-life," said Balota. "Furthermore, in the future, we hope to bring the peanut industry cultivars with improved tolerance to temperature and rainfall extremes by employing crop physiology and drone technology research for high-throughput selection of the best-performing breeding lines under these conditions".

PARTNER WITH US
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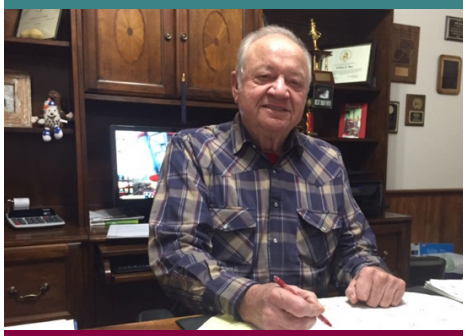
"Service to the agricultural industry, specifically Virginia row crop producers, guides my work at the Tidewater AREC. I feel strongly that preparing the upcoming generation of diverse, talented, and enthusiastic scientists ensures that our producers have the information they need to grow high-yielding, environmentally-sustainable crops into our future and our children's future."

SALLY TAYLOR
ASSISTANT PROFESSOR AND
EXTENSION SPECIALIST
ROW CROP ENTOMOLOGY



"The Tidewater AREC is an integral part of Virginia's agriculture. Without this team of researchers, Virginia farmers would be at a loss for new information and updates. I hosted the Virginia Ag Expo at my farm in Dinwiddie County in 2008 and 2016. Due to the intense participation of experts from the AREC, both of these events were a success, providing updates to our growers across the state."

BILLY BAIN
GROWER
DINWIDDIE, VIRGINIA

TIDEWATER AREC AT A GLANCE

DISCIPLINES

- Cotton, peanut, and soybean agronomy
- Plant pathology of vegetables and row crops
- Row crop entomology
- Plant physiology
- Swine reproductive physiology and management
- Plant parasitic nematode management

INNOVATIVE TECHNOLOGIES

- Drones for precision spraying and to assess plant stress
- Variable rate and micro-irrigation for row crops
- Teralytic soil probes to measure soil parameters real time

FACILITIES

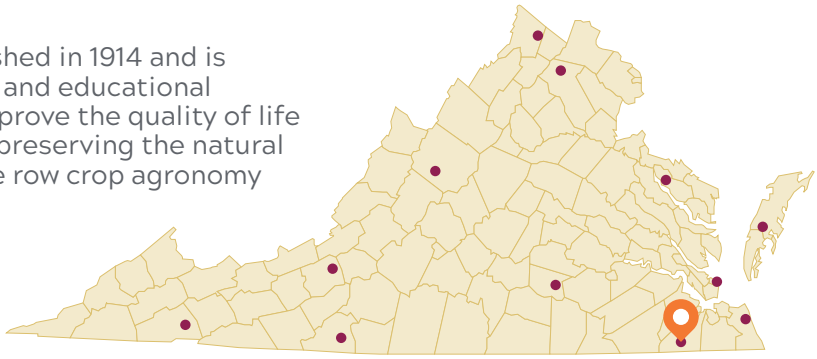
- 465-acre farm
- 228-person auditorium
- 34 buildings, including a new pesticide storage and disposal facility

INDUSTRY PARTNERS

- Peanut, cotton, corn, soybean, and small grain associations
- Swine industry
- Agricultural chemical, seed, and fertilizer industries

ABOUT THE TIDEWATER AREC

The Tidewater AREC in Suffolk, Virginia, was established in 1914 and is committed to developing and delivering technology and educational programs that support profitable agriculture and improve the quality of life in the Tidewater area and the commonwealth, while preserving the natural resources. Research and Extension programs include row crop agronomy and pest management, as well as swine production.



A COLLABORATIVE NETWORK

The ARECs are a network of 11 centers strategically located throughout the state that emphasize close working relationships between Virginia Agricultural Experiment Station, Virginia Cooperative Extension, and the industries the 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 community resources while enhancing quality of life.

VIRGINIA AGRICULTURAL EXPERIMENT STATION
VIRGINIA TECH

Virginia Cooperative Extension
Virginia Tech • Virginia State University

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