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The ESAREC Introduces “The Stalk”

The Virginia Tech, Eastern Shore Agricultural Research and Extension Center is proud to present “The Stalk”, a communication aimed to provide stakeholders, and the community, with the latest research, outreach, and Extension news.



Yes!
WE'RE OPEN



Dr. Mark S. Reiter

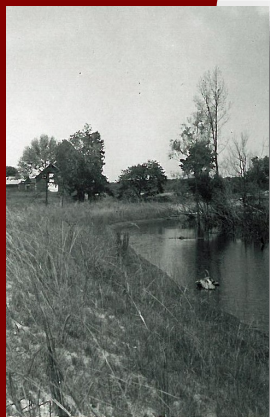
Director and Associate Professor of Soils and Nutrient Management

From The Director

I would like to take this opportunity to thank you for your continued support and dedication to the Eastern Shore AREC (ESAREC). As many of you are aware, there have been many changes here at the AREC, but I would like to assure you that we are open and ready to support your needs. Although we will miss Drs. Rideout and Strawn’s in person expertise, their research programs continue at the station. All laboratories are operational and we are working diligently with our local ANR agents to ensure you are receiving the services you require. Please be aware that the ESAREC requires all visitors to comply with COVID-19 requirements while at the facility, to include wearing a face covering, signing in and out, maintaining social distance and staying home if you have experienced symptoms or been exposed to COVID-19 per CDC guidelines. Due to limited staffing, in person appointments are encouraged. Please feel free to contact us with any questions or concerns you may have. I look forward to working with each of you in the future!

- Mark

History of the AREC



View of the AREC pond in 1956 prior to construction of the new facility which is occupied today.

“The mission of the Eastern Shore Agricultural Research and Extension Center is to support the sustainability of agriculture in Virginia. The faculty and staff are dedicated to vegetable and field crop research, Extension, and education programs.”

Graduate Research Assistant, Keren Duerksen is working to develop nitrogen and sulfur recommendations for oilseed soybean and edamame for Virginia farmers.



The history of the Eastern Shore Agricultural Research and Extension Center can be traced to the late 1890's when a group of truck (vegetable) growers and marketers in the Norfolk area formed the Southern Produce Company. Soon thereafter, they purchased land in the Norfolk area. In 1907, following discussions with the Virginia State Board of Agriculture, the Virginia Experiment Station at Blacksburg, and the United States Department of Agriculture, a vegetable research center at Norfolk, was established. At this time, the USDA assumed the responsibility for personnel salaries and the Station began operations. In 1920, the State assumed responsibilities for the operations of the Station and placed it under the administration of the Department of Edu-

cation. By 1912, it was realized that research of a similar nature was needed on the Eastern Shore and on February 13, 1913 land was leased near Tasley for this undertaking. In 1918, the Eastern Shore Station was moved from Tasley to another leased farm just south of Onley where it was located until 1955. During those years, staff would take the ferry to the Eastern Shore to conduct research in this important vegetable area. On January 1, 1956, the Eastern Shore research activities were moved to the present location near Painter, on state-owned land, a purchase made possible by funds appropriated by the General Assembly in 1954. Money was made available for construction of an office and laboratory building, a garage, shop, storage building and a residence for the farm manager.

Since then, additional buildings were constructed which include a greenhouse with attached head-house, a vegetable grading building, a sweet potato curing and storage facility, additional offices and laboratories were added to the main building, and most recently, housing for graduate students was added. A change in affiliation and administration of the center occurred when the Virginia General Assembly approved a "Memorandum of Agreement" which made the Station a part of Virginia Tech, effective July 1, 1985. At that time, the Advisory Board of the Eastern Shore and Hampton Roads ARECs was created. The Board continues to meet bi-annually to ensure the needs of Stakeholders are met and the mission upheld.

Research and Extension Focus

The primary focus of this center is to support major vegetable production area of Virginia through research and extension activities. Faculty work towards sustainable farming systems by improving soils and nutrient management, weed science, horticulture, entomology, plant pathology, and food safety. Research also addresses the rotational crops of importance to the region, plasticulture, and possible alternative crops with potential economic significance.

In addition to faculty, staff includes a team of research supervisors, a farm manager, office service and technology specialists, farm laborers, a mechanic, and a custodian. In recent years, as many as six to eight graduate students have conducted research leading to their M.S. and Ph.D. degrees at this facility annually. Graduate student opportunities are available. Please contact Drs. Reiter or Singh for more information.

Faculty and Research Programs

Crop and Soil Environmental Sciences

Dr. Mark Reiter focuses on soil and nutrient management to increase the efficiency, productivity, quality, and overall sustainability of Virginia's grain, fiber, and vegetable farming sectors.

Entomology

Dr. Tom Kuhar's research includes biological control, ecology, integrated pest management, and insecticide resistance management strategies.

Food Science and Technology

Dr. Laura Strawn's focus is on enhanced microbial safety of produce production at both the pre- and post-harvest level and subtyping of bacterial foodborne pathogens for source tracking and outbreak detection.

Horticulture

This position is currently vacant and we anticipate recruitment to begin in the fall of 2020.

Plant Pathology

Dr. Rideout continues research on the fungicidal effects on pollinators, broccoli and edamame disease control and anaerobic soil disinfestation.

Weed Science

Dr. Vijay Singh has recently begun research in weed ecology & biology, herbicide resistance and precision weed management.



2020 Field Day Goes Virtual



This year's annual Field Day went live on Thursday, August 13th! We have had over 900 views and wish to extend our gratitude to Dr. Saied Mostaghimi, Associate Dean, College of Agriculture and Life Sciences, Mrs. Ursula Deitch and Mrs. Theresa Pittman, Accomack and Northampton ANR Agents, and the faculty, staff and students who participated in making this event a success! The 2020 Virtual Field Day covers topics important to agricultural production in Eastern Virginia and Delmarva Peninsula, to include herbicide resistant weeds, plant disease, food safety, nutrient management, cover crops, insects, and other issues related to vegetable, oilseed, and grain crops. We also discussed production and updates regarding our multi-faceted edamame project and initiative. A special thank you is extended to Nutrien Ag Solutions for sponsoring this and future Field Day Events. We invite you to visit <https://tinyurl.com/esarec2020fieldday> to view the event!

Outreach and Community

The Eastern Shore AREC participates in VDOT's Adopt-A-Highway program. The AREC is now responsible for a 2.5 mile stretch of road that surrounds the station. This road was listed as one of the "Top Ten Dirtiest Roads" by the Eastern Shore Waste Watchers

organization. Faculty, staff, students, and wage employees participated in the first cleanup in the summer of 2012, collecting 37 bags of garbage. Since then, an additional 663 bags have been removed. The ESAREC hosts pesticide recertification classes, numerous master

gardener trainings and meetings and 4-H and K-12 youth tours. Faculty and staff participate annually in community science fairs, the Northampton County Ag Fair, Farm Day and the Onancock St. Patrick's Day Parade.



Meet Dr. Vijay Singh

Assistant Professor, Weed Science

Dr. Vijay Singh's program relies on inter-disciplinary approaches with focus on three major areas; 1) herbicide-resistance, 2) precision weed management, 3) sustainable cropping systems. Dr. Singh's program provides expertise on weed research and extension in row-crops (corn, soybean, cotton), oilseeds, small grains, and vegetables. His team conducts surveys to document the herbicide-resistant weed species in Virginia and determines the molecular mechanisms responsible for herbicide-resistance. He is also working on digital agriculture and data driven technologies under Virginia Tech's Smart Farming Initiative. His team tests Unmanned Aerial Systems (UAS)/sensor-based ground vehicles and robots for weed species differentiation, herbicide-resistance detection and spray applications for precision agriculture. Dr. Singh is a part of the [GROW](#) (Get Rid Of Weeds) network and [PSA](#) (Precision Sustainable Agriculture) team that integrate knowledge-intensive agricultural practices to maximize weed control efficiency, farm productivity, and sustainability.



EXPERTISE

- Weed Ecology & Biology
- Herbicide-resistance
- Precision Weed Management

EDUCATION

- Ph.D. Weed Science, University of Arkansas, 2015
- M.S. Agronomy, CCS Haryana Agricultural University, 2008
- B.Sc. Agriculture, CCS Haryana Agricultural University, 2006

Help with Plant Diagnostics

On August 3, 2020, Virginia Tech's main campus and outlying Agricultural Research and Extension Centers (ARECs) moved from "essential operations" status to "modified operations" status. This operational change has allowed the Eastern Shore AREC to reopen and begin allowing in-person meetings - appointments are encouraged - and assistance with plant diagnosis. Business hours are 7:30 am to 4:00 pm if you need to drop off plant samples for diagnosis. Samples and completed forms should be left on the "sample" table inside of Main Entrance. Should you need to leave a sample after hours, there is a cooler and forms outside for drop off.

We are currently operating with reduced staffing so an in-person appointment is preferred for all departments.

Weed ID & Management:

For herbicide-resistance issues: Please provide seed samples of suspected resistant weed and details about herbicides used and crop in field.

For weed Identification/weed management: Email/text photos of weed(s) with details of the crop field and/ or location of collection to Vijay at: v.singh@vt.edu or text/call 479-713-0094.

Soils and Nutrient Management:

Email/text photos and plant/soil sample reports to Mark at: mreiter@vt.edu or tex/call 757-693-2556.

Entomology :

Email/text photos or questions to Hélène at: hdoughty@vt.edu or text/call 757-999-0780.

Plant Disease:

Email/text photos or questions to Steve at: srideout@vt.edu or text/call 757-694-7128. Samples may be submitted to the ESAREC or the Virginia Tech Plant Disease Clinic based on needed testing. Sample submission to the Plant Disease Clinic should be done through your local Virginia Cooperative Extension agent.

Accomack County: Theresa Pittman at tpittman@vt.edu or 757-710-9401.

Northampton County: Ursula Deitch at ursula@vt.edu or 757-647-0947.

For more information on proper sample collection, visit: <https://spes.vt.edu/affiliated/plant-disease-clinic/submitting-samples.html>.

Food Microbiology and Produce Safety:

Email/text food safety and water quality questions to Laura at: lstrawn@vt.edu or call 714-450-0629. Joy Zuchel will be managing the day to day operations at the ESAREC food microbiology lab: (jzuchel@vt.edu) or 757-710-1761.



Eastern Shore Agricultural Research and Extension Center

33446 Research Dr.

Painter, VA 23420

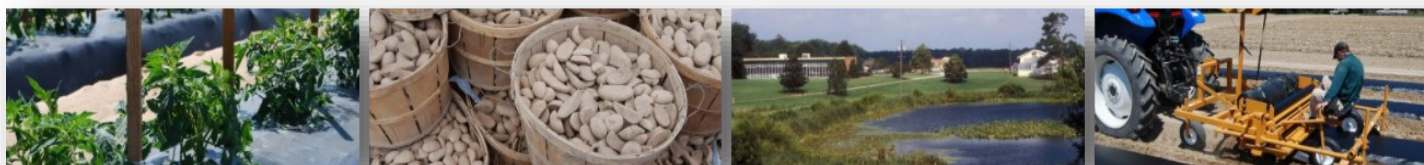
Phone: 757-807-6586

Fax: 757-414-0730

<https://www.arec.vaes.vt.edu/arec/eastern-shore.html>

The Virginia Tech, Eastern Shore AREC is committed to supporting commercial vegetable, grain, oilseed, and fiber production throughout the Commonwealth of Virginia. Centrally located on Virginia's Eastern Shore, the center conducts basic and applied research on more than 25 agricultural crops.

If you are a person with a disability and desire any assistive devices, services or other accommodations to participate in any activity, please contact Lauren Seltzer at 757-807-6586* (*TDD number is (800) 828-1120) during business hours of 7:30 a.m. and 4:00 p.m. to discuss accommodations.



ESAREC Contacts

Faculty	Email	Work Phone	Cell Phone	Title
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Vijay Singh	v.singh@vt.edu	757/807-6579	479/713-0094	Assistant Professor, Weed Science
Staff	Email	Phone		Title
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