

Greetings

The spring semester is over, warmer weather is here, and on campus parking is abundant and it's eerily quiet. Summer is a great time to be in Blacksburg, but we also look forward to late August when the people who pay most of the bills (students!) roll back into town. We had a large graduating class in May, with 52 students receiving BS degrees in Environmental Science or Crop and Soil Science, and MS and PhD degrees. Fourteen of our 35 undergraduates were graduated with honors—excellent evidence of the ability of our students. Our cohort of seven graduate students from Senegal—Andre Diatta, Sekou Diatta, Ndeye Helene Diallo, Thioro Fall, Fatou Tine,



The seven Senegalese graduate students and other department members.

Aissatou Diouf, Marieme Drame—graduated with MS degrees. Our colleagues from Senegal excelled as students and also contributed in many ways to the department. They participated in the life of the department, and many of us have had the opportunity to appreciate the richness of Senegalese culture and cuisine because of them. Sharing these past two and a

half years with these colleagues has vividly illustrated the richness that cultural diversity can bring to the department, and I hope we have more such opportunities in the future! As a department I know we're proud of all our graduates and wish them all future success.



Tom Thompson

I'm asked frequently about the progress of the School of Plant and Environmental Sciences. The faculty of the three departments (CSES, HORT, PPWS) voted overwhelmingly in favor of the pre-proposal to establish the school. The three department heads are drafting the full proposal for consideration by the faculty. We hope that this will be approved and on its way into university governance for approval near the beginning of fall semester. As always, stay tuned for details.

I hope each of you has a great and productive summer, including some well-earned downtime.

CSES Outstanding Seniors

Each year, the Department of Crop and Soil Environmental Sciences selects one senior from each major as the "Outstanding Senior" for that year. Selection is based on academic achievement, service to the university/community, leadership, and extracurricular participation. This year's Outstanding Seniors are Logan Holland for Crop and Soil Sciences and Haley Randolph for Environmental Science.



Logan Holland
– Crop and Soil
Sciences

Logan is from the Eastern Shore of Virginia. He graduated with two degrees: one in Agribusiness Management and the other in Crop and Soil Sciences with an option in Agronomy. Outside of classes, he has been involved in the Agronomy club (serving as President this past year), Commodities Investing by Students (COINS), VT Men's Rugby Club, and the Virginia Tech chapter of Delta Waterfowl. He studied abroad in Ecuador last summer where he had the opportunity to examine cropping systems and production farms and practices to improve yields. He has also worked as a student assistant at the VT Agronomy Farm with Dr. Wade Thomason. Upon graduation, he will be returning to the family farm in New Church, Va.



Haley Randolph –
Environmental Science

Haley is from Center Valley, Pennsylvania. She graduated with a degree in Environmental Science with minors in Spanish and Green Engineering. She has been in the Student Government Association all four years at VT; the last three years she served as the Executive Director of Sustainability. Through this position, she helped Dining Services fund the expansion of the reusable to-go program and got a reusable to-go container for every student on campus, saving dining services \$183,000 this semester alone. Her sophomore year, she was the coordinator of the Environmental Coalition's Earth Week. She has been a CALS ambassador for 3 years. In this position she assists prospective students and their families learn more about VT and the College of Agriculture and Life Sciences. Haley also studied abroad in Quito, Ecuador for a semester taking classes in Spanish. She worked as a lab assistant in the Soil Rhizosphere and Microbial Lab for three years, spending one summer at VT working full time. This past summer and winter breaks, she interned for Qualitest Pharmaceuticals as an environmental health and safety intern where she revamped their safety data sheet system and developed a plan to jumpstart their industrial recycling program. As for future plans, she's currently looking for environmental consulting positions.

Congratulations to the Spring 2016 CSES Graduates!

MS and Ph.D. Graduates

Ben Averitt MS
Tyler Black MS
Adam Boyd MS
Emily Brown MS
Bee Chim PhD
Julia Cushman MS
Ndeye Diallo MS
Andre Diatta MS
Sekouna Diatta MS
Aissatou Diouf MS
Marieme Drame MS
Thioro Fall MS
Wangui Gichane MS
Daniel Johnson PhD
Erik Severson PhD
Emily Sorenson MS
Fatou Tine MS
Lucas Waller MS

Environmental Science

Charlie Aquilina
Ashleigh Benson
Grace Bule
Julie Chang
Katherine Dayley – Magna Cum Laude
Scarlett Forrest
Logan Howard – Magna Cum Laude
Zachary Kirkpatrick – Cum Laude
Michael McDonough
Jacob McGaughey
Lucas Nachman – Magna Cum Laude
Kaitlin Palys – Cum Laude
Kathryn Printz – Cum Laude
Haley Randolph – Summa Cum Laude
Madeline Ryan
Spencer Sauter – Magna Cum Laude
Naina Sharma
Olivia Simpson
Kristen Walls
Caitlin Wilkinson – Magna Cum Laude
Joseph Wurst

Crop and Soil Sciences

Kayla Bond
CJ Buck
Lee Coppock
Jessica Cox
Katie Dougherty
Jordan Hoffman
Logan Holland – Magna Cum Laude
Daniel Joyner
Ben Morrison – Cum Laude
Carrie Ortel – Cum Laude
Caleb Pittard
Andrew Pound
Landon Prever
Travis Roberson – Summa Cum Laude
Ty Vaden
Steffany Yamada – Summa Cum Laude

Student Highlights

Agronomy Club attends the Commodity Classic in New Orleans, LA



CSES Graduate Student, Martin Battaglia, Selected as Catalyst Program Member



Martin Battaglia

The Catalyst Program is designed to bring interdisciplinary groups of students, both undergraduate and graduate, together in order to grow the entrepreneurial resources at Virginia Tech. The Catalyst Program is engaged in projects both on and off campus and has been an active leader in revolutionizing the innovation landscape at Virginia Tech. Martin was selected from a pool of over 100 nominees and over 50 second round finalists across VT.

CSES students attend the Environment Virginia Symposium in Lexington, VA



VT Places 10th at the National Soil Judging Championship in Manhattan, KS



Faculty Spotlight



Dr. Lee Daniels

I began working for CSES (then the Agronomy Dept.) in 1980 as a Research Associate working on coal mine reclamation research. In 1987, I was appointed to a tenure-track faculty position and I currently serve as the T.B. Hutcheson Jr. Professor of Soil Science. This position is particularly meaningful for me since I was hired by Tom Hutcheson and my predecessor in this chair was the late Lucian Zelazny, who was my major professor for my PhD program.

I have continued to focus my research program on the rehabilitation of various kinds of disturbed lands including mining sites, road corridors and dredge spoil utilization areas. I also work in the area of wetland creation with a particular focus on how to reconstruct appropriate soil and hydrologic conditions in new wetlands that are created to compensate for unavoidable wetland impacts like road building. Basically, I just tell people that I have focused my career on fixing soils and landscapes that people have messed up and we have no shortage of things to work on!

Instruction is particularly important to me and I teach a wide array of undergraduate soil-environmental courses including basic soils, geomorphology, land reclamation and soil-waste management systems. I also teach several graduate courses and I am the Graduate Program Director for our 60 MS and PhD level students. I am the major advisor for several MS and PhD students and I am really fortunate to have a great supporting staff of Research Associates and Post-Docs who actually do all the research that I get too much credit for.

I live in Blacksburg with my wife Jody, who also works for CALS as their Nutrient Management Planner. We have two adult sons, Graham and Cameron, who both live in Blacksburg. I am an avid sports fan and occasionally play a round of golf.

Grants

Evanylo, G. and E. Ervin. Title: Comparisons of exceptional quality biosolids and inorganic fertilizer on Carbon and Nitrogen dynamics and turfgrass production and quality. Sponsor: Virginia Agricultural Council. Amount: \$15,000.

David Holshouser, "Site-Specific Practices to Insure High Return on Investment for Virginia Soybean", Virginia Soybean Board, \$40,000

David Holshouser, "Increasing Yields and Profitability for Mid-Atlantic Double-Crop Soybean", Virginia Soybean Board, \$26,075

Hillary Mehl & **David Holshouser**, "Validation, Optimization, and Employment of Fungicide Advisories for Soybean", VSB, \$26,447

David Holshouser, "Chickpea in Virginia – Situation, Observations, Problems", Sabra Dipping Company, LLC, \$6,000

CSES Graduate Student, **Jinshi Jian**, received the Graduate Research Development Fund – competitive grant awarded by the VT Graduate School to further graduate research. \$1,000.

Thompson, T., D. Holshouser, B. Zhang, and D. Langston. "Solving challenges to chickpea production in Virginia". VDACS, \$40,000.

Publications

Kim J, Y. Liu Y, **X. Zhang**, B. Zhao, K.L. Childs. 2016. Analysis of salt-induced physiological and proline changes in 46 switchgrass *Panicum virgatum* lines indicates multiple response modes. *Plant Physiol Biochem.* 105:203-212.

Events

The Southern Piedmont AREC Tobacco Field Day

Scheduled for Tuesday, August 2, 2016. Registration will begin at 5:00 pm, a sponsored dinner will be served at 5:30 pm, and the tobacco tour will begin at 6:00 pm. The tour will conclude about 8:00 pm. Field Tour Topics include: Agronomic management for tips production and de-lugging treatments; Tobacco curing efficiency; Tobacco sucker control and MH residue management; Flue, burley, and dark-fired tobacco variety evaluations; Organic tobacco fertilization; Black shank fungicide tests; Nematode and disease control; Insect pest management.

Extension Highlight



Jay Conta showing an example of an impervious stratum.



Steve Thomas giving a presentation on Landscapes and Landforms.



Tom Saxton discussing the dry-edge concept.

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Ted Ellmore

Ted Ellmore Receives Staff Career Achievement Award

Theodore Ellmore, retired programmer in the Department of Crop and Soil Environmental Sciences in the College of Agriculture and Life Sciences, has received the university's 2016 Staff Career Achievement Award. Created in 2011 to recognize retiring staff members, the Staff Career Achievement Award is presented annually to as many as five individuals who have distinguished themselves through exemplary performance and service during their university careers. Nominees must have worked a minimum of 10 years at Virginia Tech. Each recipient is awarded a \$1,000 cash prize.

Ellmore retired from the university in February 2015 after 43 years of service. Ellmore began as a laboratory and research technician, running various assays on forage materials, but was a man of many talents. As the university moved into the technological world, Ellmore became a self-taught computer technician, which resulted in his role changing to information technology specialist. He served as the department communications and network liaisons, webmaster, and photographer.

He is described as thorough and professional, always willing to help administrators, faculty, staff, students, or alumni. For example, Ellmore set up his office and home phones to roll over to his cell phone to be more accessible to answer any computer questions at any time. One colleague said that one key to success is to make yourself indispensable, something Ellmore accomplished during his time at Virginia Tech. Ellmore was an active member and participant of the Information Technology Conference held twice a year. He also supported humanitarian initiatives held by the university.

2016 Outstanding Recent Alumnus – Tim Woodward – 2008 B.S. CSES; 2011 M.S. CSES



Dr. Thompson, Tim Woodward and Dean Grant

2016 Outstanding Alumnus – Bruce Beahm – 1977 M.S. Agronomy



Dr. Thompson, Bruce Beahm and Dean Grant

2016 Outstanding Alumna in International Programs Award – Dr. Ozzie Abaye – 1992 Ph.D. CSES



Ozzie Abaye with Dean Grant

Mark S. Reiter, Ph.D. - 2015 Early-Career Award in Research



Mark Reiter

Mark Reiter received the 2015 Early-Career Award in Research from the Southern Regional Branch of the American Society of Agronomy (ASA) in San Antonio, Texas in February 2016. This award is presented to one ASA member in the Southern Region per year that has made significant accomplishments in their field of research. The Southern Branch of ASA is comprised of agricultural scientists from Oklahoma to Virginia to Puerto Rico. Mark is an Associate Professor and Extension Specialist of soils and nutrient management at the Virginia Tech Eastern Shore Agricultural Research and Extension Center in Painter, VA. Mark received a B.S. from Virginia Tech, a M.S. from Auburn University, and a Ph.D. from the University of Arkansas. In his research and Extension program, Mark strives to increase grain, oilseed, fiber, and vegetable productivity by increasing efficiency to reduce the overall environmental footprint of production.

Mark has authored 15 peer-reviewed publications, over 150 Extension publications, abstracts, and other reports, and holds one US Patent. Mark has presented locally, nationally, and internationally and has presented over 175 presentations and workshops to Extension clientele. In addition to serving on many committees at Virginia Tech, he is active in the Soil Science Society of America, American Society of Agronomy, and currently serves as Past-President of the Southern Regional Branch of ASA.