Greetings

My theme for this quarter is excellence in graduate student performance and training. On February 3rd, our graduate students, with help from faculty and staff, successfully hosted the Roy E. Blaser Distinguished Lecture and CSES/PPWS Graduate Student Research Symposium at the Inn at Virginia Tech. Special thanks go out to Jasper Alpuerto and Jen Stewart for their hard work organizing and providing follow through on this event. The day had four important objectives: Honor the scientific legacy of Dr. Roy E. Blaser, University Distinguished Professor of Agronomy (1971), whose financial endowment supports our Keynote Speaker; learn from a renowned lecturer (Dr. David Kingston) how a career in plant and/or environmental science can have large and lasting impacts on the world; provide our CSES and PPWS graduate students an opportunity to practice their scientific presentation skills by competing in a research poster session; and highlight the depth, breadth, and quality of our departmental programs to visiting prospective graduate students.

Dr. David Kingston, University Distinguished Professor of Chemistry here at VT, gave an excellent overview of his career based on discovery of unique plant natural products that have been the basis for the development of anti-cancer and anti-malarial medicines. One example is oncovine from the Madagascar periwinkle that led to a form of chemotherapy that helped cure Hodgkin’s disease in one of his graduate students (1976). A more recent example is discovery of anti-malarial compounds in Mallotus oppositifolius from the Madagascar rainforest. Drug-development partners such as Dow AgroSciences contributed to Kingston-led projects that resulted in these rainforest areas being designated as protected, along with raising funds to support community development of grain storage warehouses, school buildings, and a bridge. We were truly blessed to learn from Dr. Kingston’s Blaser lecture.

Three monetary awards were given to CSES and PPWS graduate students in recognition of the excellence of their posters. While first and third place went to PPWS students, our own Diana Escamilla, mentored by Dr. Bo Zhang, got second place for her poster: Enhancing Soybean Sprout Food Safety through Seed Disinfection Treatments. Congratulations to all 60 presenters; they made a great impression on our visiting prospective graduate students. We hosted seven students from around the country and a majority have accepted our offers to join our CSES team soon!

To finish, we continue to move forward on our progression toward becoming a School of Plant and Environmental Sciences (SPES). Our resolution to create SPES was approved by University Council in December, 2016. On April 3rd, Dean Alan Grant and I will present our SPES creation proposal to the VT Board of Visitors for approval. Our final governance step will be consideration by the State Council of Higher Education (SCHEV) in late spring. Plans are in progress to hire a Founding Director to lead the School, which should officially be formed in mid to late 2017.
Ecuador 2017: Developing cohesiveness with ourselves and our environment – by Dr. Matt Eick

For 16 days nine students and 2 faculty traveled in Ecuador, visiting three distinct ecosystems and explored the interactions and relationships between the environment, culture, and human well-being. Along with faculty from the Universidad San Francisco de Quito, students traveled to three ecoregions in Ecuador that included Galapagos Islands, Andes Paramo, and Amazon rainforest. While hiking in an un-grazed paramo, students learned about carbon sequestration, water quality and demand, and the impacts of animal grazing in watersheds. While at Tiputini Biodiversity Research Station, deep in the Amazon rainforest, students studied medicinal plants and discussed issues about deforestation, oil and metals exploration, and consequent changes in population, access, and culture. Taking what they learned in the Amazon, students then visited Jamba Hausi, the only clinic in Ecuador that blends traditional and modern medicine. Students were observers and participants in traditional healing and cooking practices while they learned about beliefs, traditions and history of the Kichwa people. The program culminated with a visit to the Galapagos Islands of Santa Cruz and Isabela where issues of tourism, over fishing, pollution, and climate change were emphasized. Informal and experiential learning created change in many students, with one student writing, “I have found myself making small changes to my daily routine as a result of what I learned in Ecuador….this trip has definitely transformed me….I intend to pursue an extraordinary life, not an easy one.”

Creating a Study Abroad Program in South Africa

Dr. Ozzie Abaye and Jen Stewart travelled to South Africa in December to visit the University of Stellenbosch and set up a study abroad program on Global Food Security. They plan to start taking students there winter break, 2018.

Awards

The University Alumni Award for Excellence in Extension (among the most prestigious awards given to faculty by Virginia Tech and its Alumni Association) – 2016 Specialist Award – Dr. Wade Thomason

CSES Graduate Student, Kelly Mercier, won first place in the American Forage and Grassland Council’s Emerging Scientist Poster Competition at the AFGC annual conference in January. Her poster was titled Shade Affects Quality and Productivity of Forage Mixtures for Silvopastures.

CSES Graduate Student, Martin Battaglia, was selected as the 2017 Vice-Chair/2018 Chair for the ACS-Graduate Student Committee member (ASA-CSSA-SSSA). He is shown here with other society leaders.

Visit our Facebook page at: Crop and Soil Environmental Science at Virginia Tech

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I serve as Associate Professor and Extension Soybean Agronomist with the CSES department and am located at the Tidewater Agricultural Research and Extension Center in Suffolk, VA. After completing my degrees at N.C. State and Texas A&M Universities and while serving as a Weed Management Specialist at the University of Nebraska, I became increasingly interested in returning to my agronomy roots. When my current position was advertised in 1996, I jumped at the opportunity to diversify my career and get a little closer to home and family.

At the Tidewater AREC, I’ve had the luxury to focus most of my efforts on soybean and work alongside agronomists, soil scientists, entomologists, plant pathologists, crop physiologists, and even animal scientists. This interdisciplinary team makes my work especially enjoyable and challenging. It’s always nice to know that answers to diverse issues are just down the hall or in the lab next door. Furthermore, the nearness of some of my experiments, often just a few hundred feet from my door, is not only convenient but allows regular observation. This is not to say that all of my experiments are close; most are at another AREC or on-farm. There are many things that I miss with not being on campus and interacting regularly with the Department and College, but in general, I’m more effective closer to where I’m needed.

Four simple words can explain what I do as an Extension Agronomist: Learn – Discover – Teach – Serve. I’m learning everyday through reading, studying, and interacting with others. I discover through our applied research. One of the joys of an Extension Specialist is that you’re always teaching – some say that we just like to talk. When people I don’t know ask me who I work for, I like to say farmers, although that is not exactly true. However, serving our clientele whether its farmers, Extension Agents, crop advisors, or the people of the Commonwealth (and entire world) is what we are all here for and is most important.

John Royse studied how turfgrass tiles can protect the landscape while he was a graduate student at Virginia Tech. After graduation he formed his own company and his tiles were recently used on the National Mall during both the presidential inauguration and the Women’s March.

### Publications


### Grants

- **Battaglia, Martin.** December 2016. Graduate Research Development Program (GRDP) award. Graduate Student Assembly (GSA). Virginia Tech ($1,000).

### Events

- Greg Evanylo will contribute to instructional efforts for an Urban Agriculture Certification Program sponsored by Tricycle Gardens, USDA-NRCS, and Bon Secours. The training will be held in Richmond between March and June.

- Mark Reiter will be hosting a joint USDA-NRCS Employee Development and VCE In-Service training showcasing current Conservation Innovation Grant and USDA Sustainable Agriculture Research and Education projects at the ESAREC, April 24-25.

- The Virginia Sports Turf Managers Association Field Day will be held April 25 @ RF&P Park in Glen Allen and the Virginia Golf Turf Research Field Day and Research Golf Tournament will be held May 22 @ The Country Club of Virginia in Richmond.

- The 2017 Virginia Small Grain Field Day sponsored by the Virginia Grain Producers Association and VCE will be held May 18 at Featherstone Farm in Amelia County.

- In collaboration with the Virginia Department of Agriculture and Consumer Services, the Virginia Turfgrass Council, and the Virginia Nursery and Landscape Association, Greg Evanylo, Rory Maguire, and Mike Goatley conducted free online 2 hour Certified Fertilizer Applicator and Trained Technician Recertification webinars in November and February that served the recertification needs of over 600 Virginia certified fertilizer applicators.
Student Highlights

Sports Turf Managers Association (STMA) 2017 Competition – VT Turf Team wins 3rd place!

Joshua Lillard, Travis Roberson, Drew Miller, Will Lannon, and Andy Kinch

Golf Course Superintendents Association of America (GCSAA) Collegiate Turf Bowl - VT finished 15th out of 60 teams

Kit Luke, Caleb Hinkle, Dr. Ervin, Jacob Odum, and Matt Hermann

Agronomy Club – by Jamie Hodnett, Vice President

We have been very busy this year with the peanut sale and speakers. We had a very good year for peanut sales. We would like to say thank you to all of those who purchased peanuts and we hope to see them again next year. We have had industry speakers such as BASF and Augusta Co-Op come to speak, which have both resulted in internships for some members. We have also had the opportunity to form relationships with the National Corn Growers Association, Virginia Grain Producers Association, Doebler Seed, and Bayer Crop Science. As a club, we have participated in GobblerFest, Pulaski County Ag Day, Virginia Grain Producer Association’s Annual Meeting, Commodity Classic, and the Big Event.

Soil Judging Team Practices for National Contest

The Virginia Tech Soil Judging Team has been meeting every Thursday and Sunday to prepare for the upcoming National Contest on April 23-28. These voluntary meetings were set by the team and are well attended. The teaching is led by the students who present a powerpoint and a quiz from sections of the contest handbook, supplemented by material from Dr. John Galbraith and Asst. Coach Mike Badzmierowski. The teaching is designed like a flipped classroom to give the team members control over the material and help them learn it themselves. The classes are designed to be fun, with refreshments and soil samples brought in each week. On voluntary field trips, students carpool to the sites, dig and refill the 3 feet wide x 7 feet long x 2.5 feet deep pits. The team is planning some team building events such as an escape room visit and rock climbing. They also sponsored a large service event early in the year.

New faces in CSES

Romina Benitez – Water Quality Technician, working with Dr. Brian Badgley

Ryan Klopf - Adjunct Instructor teaching ENSC 3644: Plants for Environmental Restoration

Lucas Waller – Research Associate – Analytical Biology and Chemistry, working under Dr. Brian Badgley

Brandon Lester – Environmental Monitoring Tech