

PLANT AND SOIL SCIENCES

West Virginia University



In the News



- The WVU Soil Testing Lab analyzed nearly 10,000 soil samples in 2019 (more on page 4).
- A new major will be introduced to the Davis College as of Fall 2020: Sustainable Food and Farming.
- Wishing Thomas Griggs a happy retirement! His last day was on February 28.
- Teiya Kijimoto and Daniel Panaccione are nominees for the division's Outstanding Undergraduate Research Mentors.
- Kinsey Reed received a Ruby Distinguished Doctoral Fellowship and will be joining Zac Freedman's lab.
- Daniel Panaccione is a finalist to mentor students in the Beckman Scholars Program to provide a student \$21,000 for a research apprenticeship.



BY THE NUMBERS

- \$2.14 million of new funding in 2019 for 14 projects
- Undergraduate Fall 2019 Enrollment: 119 students
- PSS Faculty published 48 articles, 4 book chapters, 4 conference proceedings and 2 review articles



Student Spotlight

Rhiannon Newton

Meet Rhiannon, a December graduate from the division of Plant and Soil Sciences, who is currently pursuing graduate school. Recognized as one of the division's Outstanding Seniors, Rhiannon worked at WVU's Organic Farm, studied abroad in Vienna, Austria and completed two internships during her past years at the Davis College.

For six months, Rhiannon interned at the Tagawa Gardens in Colorado as part of the Vic and Margaret Ball Internship. In Colorado, Rhiannon got to be a part of the entire greenhouse experience, including everything from plant bedding and plug trays.

Additionally, Rhiannon interned with Plant Delights Nursery in North Carolina as a freshman, an award-winning nursery that works with rare and native perennials. Here, Rhiannon was able to live on site, right next to the nursery's botanical garden. Rhiannon is currently working on her grad project, which involves testing an iron-coated sand as being a part of a growing media for plants in greenhouses to prevent phosphorus from leeching out.

When asked about her successes and her role models, she says, "Dr. Verlinden was the professor who was there for my tour at WVU, and he was so passionate that he actually made me want to go here more."

Her advice for incoming freshman?



Stay connected!



WVU Plant and Soil Sciences



@wvuplantandsoilsciences



@wvu_pss



Don't be afraid to reach out to your professors. They are really there for you and they can offer you career advice and life advice to guide you... Take all the opportunities that you can; there are a lot that get overlooked or that don't get applied to."



Alumni Spotlights

Jordon Masters

When Jordon graduated in 2015, he knew he wanted to become an entrepreneur. Soon, he would build a multidisciplinary company from the ground up, located just across the river in Westover. His greenhouse, Micro Genesis Grown to Matter, manages the production of produce that is then sold to local markets and restaurants, like Mountain People's Co-Op, Black Bear Burritos and Bourbon Prime, to name a few.

But production isn't the only aspect Jordon is in charge of. He also works with a platform where farmers can upload open source hardware to a central database that works with IOT (also known as the "internet of things").

The IOT device can water the greenhouse's plants using Jordon's smart phone. From the platform, farmers can also access markets and extensions and researchers.

The main challenge? Making this platform easily accessible for all farmers in West Virginia.

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Basically, the entire system in the greenhouse — heating, cooling, watering — we design ourselves. What we are trying to do is be able to give that extra teeth to the small to midsize farmer so they don't have to break the bank.”

Adrienne Nottingham

Adrienne graduated from WVU in 2014 with a degree in Soil Science with an emphasis on Watershed Management before going on to graduate school to complete a master's degree in Agronomy with an emphasis on Soil Sciences. Today, Adrienne is an Assistant Forest Soil Scientist with Monongahela National Forest's Forest Service.

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Most of my work involves writing soil resource analyses for various proposed land management actions to meet the National Environmental Policy Act. For instance, if a timber harvest is proposed on the MNF, I evaluate the potential effect of that action on the soil resource. I conduct these analyses using a combination spatial, mapped soil survey information and field work.”



Adrienne's favorite part of her job is digging and describing soil pits (she's a former soil judger!), and she enjoys participating in restoration projects. She spends her time working with specialists over a "highly variable landscape." During her time at WVU, she often worked with Jeff Skousen and Jim Thompson. Now, she encourages current students to get to know their professors and work with them individually.

Faculty Spotlight

Eugenia Pena-Yewtukhiw

Eugenia is an associate professor at WVU, and as of 2016, the Director of the WVU Soil Testing Laboratory. In addition to this position, Eugenia is the first woman and the first Hispanic woman director of the lab. In 2019, the lab analyzed nearly 10,000 soil samples from West Virginia and beyond. Eugenia thinks this number will only increase in the future. This number indicates how the soil lab gives back to the West Virginia community. Many landowners in West Virginia have difficulty affording a standard soil test. When this is the case, they can come talk to Eugenia and the rest of the lab.

The soil testing process at WVU's Soil Lab is free for land owners in West Virginia. The lab can test any soil sample, from fields spanning acres to the garden in your backyard. When someone brings in a sample to the Soil Lab, Eugenia and her team dry the soil sample, crush it, filter it and analyze the components of the sample. Based on the findings, Eugenia can let someone know what exactly is in their soil and what they can do to keep it healthy.

The Soil Lab's website is full of helpful information for any step of the soil analysis process you are on. By visiting soiltesting.wvu.edu, you can learn how to properly extract soil samples from your land to get the most accurate results, what your results mean and what you can do with them.



We can give back to the community through the lab, and that's why I fought so hard to make it work. It's an interesting feeling, since researchers are so into our own knowledge; but this was directly for the people in West Virginia."

