agCOMPLISH 2020

ADVOCATING FOR AGRICULTURE

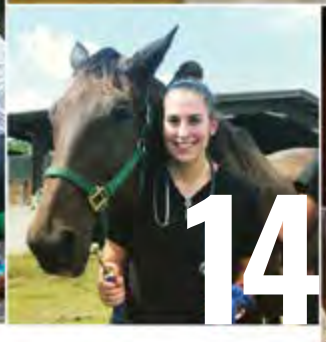
ALUMNUS MENTORS THE NEXT GENERATION OF FARMERS

FVSUag

COLLEGE OF AGRICULTURE, FAMILY SCIENCES AND TECHNOLOGY

20

CONTENTS:



agCOMPLISH 2020

Dr. Ralph Noble
Dean, College of Agriculture, Family Sciences and Technology

Dr. Mark Latimore Jr.
Extension Administrator

Terrence Wolfork
Assistant Administrator of Communications, Conferencing and Technology

Marquinta Gonzalez
Director, Agricultural Communications

ChaNaé Bradley
Senior Communications Specialist

Russell Boone Jr.
Public Information Editor/Writer

Latasha Ford
Research Communications Specialist

Jeff Brothers
Graphic Designer

Find us on Facebook facebook.com/FVSUCAFST

Follow us on Twitter @FvsuAg

Visit us online ag.fvsu.edu

NEW LEADERSHIP, NEW OPPORTUNITIES

NEW DEAN REFLECTS ON VISION FOR THE COLLEGE OF AGRICULTURE, FAMILY SCIENCES AND TECHNOLOGY

BY LATASHA FORD

Dr. Ralph Noble is a new member of the Wildcat family. He serves as the dean of Fort Valley State University's College of Agriculture, Family Sciences and Technology (CAFST). He became appointed to his role in July 2019.

Noble said FVSU is a key component and valuable asset to the community. His first impression of the university was the welcoming and friendly environment and the well-manicured campus.

"A reflection of the quality image we aim to project," he said. "When you ask people questions, you get a smile and an answer to send you on your way. There is no doubt I am excited about being here and looking forward to making an impact on the university, the CAFST and the community."

His primary goals for the CAFST are student success and enrollment growth while continuing to grow agricultural research and the Cooperative Extension Program. "I am joining a very capable group of colleagues," he said.

However, Noble said enrollment growth and student success are urgent. "We want the ones here right now to stay the course and leave with a degree while looking forward to a new trajectory in life through job training and placement. There are changes we will have to make. To be successful, we need to all be on board with recruiting and customer service. A question we must ask ourselves is, 'What is going to be the message and image we want everyone to leave with regarding the CAFST that will make the youth of today want to come here?' We may not be a big school, but what we do, we do well," Noble declared.

Part of his plan includes organizing a student advisory council on campus so that students can have some input.

"Do not let them hear the results; let them be involved in the planning. I think they will buy into it much better," he advised. "We want to change how we think about things and how we solve them. Whatever the trouble is, no matter where it is in the college, I consider it my trouble, too. It is a matter of us working together to resolve it."

Noble earned a Bachelor of Science in agricultural sciences and a Master of Science in animal sciences from Tuskegee University in Alabama. He earned a doctorate in reproductive physiology from the University of Illinois at Urbana–Champaign.

The CAFST dean started his agricultural career as a faculty member at his alma mater, Tuskegee University. He served as an instructor, farm manager and later became the co-coordinator of the Animal, Poultry and Veterinary Sciences program. Prior to his position at FVSU, he was the chair of the Department of Animal Sciences at North Carolina Agricultural and Technical (A&T) State University.

LET'S CHAT

Dr. Ralph Noble, dean of Fort Valley State University's College of Agriculture, Family Sciences and Technology, participated in a question and answer discussion sharing his personality and passion for agriculture.

If you could be any animal, which one would you be and why?

"I like the tiger – something that is going to be fierce and does not mind fighting for and protecting its family and community; being the best you can be. Another key component is that you may have to make choices that are best for the family unit and not to make friends. It can be a lonely job. That involves having tough skin as well."

What is your secret talent?

"My secret talent is engaging youth and community. I enjoy meeting people who may not initially connect with you, but if you approach them the right way where they are, they eventually get comfortable around you and express their feelings. I also welcome the challenge of working with youth who at times cause the most trouble. I am drawn to them because, in some ways, they remind me of some of my friends in my youth. They do not need us to walk away from them. They may need an extended hand to help and we are here for that."

Growing up, what was your favorite television show?

"Animal Planet. I liked Lassie and those stories where animals were a part of human daily life. Animals can help us feel good about what we do. When everyone is mad at you, your dog will still wag its tail and lick you. I also enjoyed those shows about veterinarians and solving

some of the many problems various animal species find themselves in."

What movie title would you choose for the story of your life?

"My story is not over yet. I think my life is still developing and growing. During my youth, I accomplished things mostly through physical effort. I now make an impact through wisdom, engagement and getting others excited from experiences and about what to expect in the horizon. I make mistakes, but everyone does. We grow and acquire wisdom from what we learn from our mistakes. When people read a story about my life, I hope they will see me as someone who would get out there where people are, sometimes in the field, and engage individuals regardless of wealth or education. In other words, less talking and more doing. I aim to bring that approach to the CAFST."

Who or what inspired you to pursue a career in agriculture?

"My grandparents had farms in Mississippi and Oklahoma. Growing up in Chicago, my parents thought it would be better suited for my brothers and I (six siblings) to spend our summer breaks at my grandparents' farms. Those early summers exposed me to life on the farm during my middle and high school years."

Why should students pursue a degree in agriculture at FVSU?

"The majors in the College of Agriculture, Family Sciences and Technology cover a broad and diverse spectrum. We have veterinary technology, animal science, plant science, biotechnology, agricultural economics, agricultural engineering technology, electronic engineering technology, agricultural education, food science, food and nutrition, infant and child development, and public health. We focus on food, family and technology. Yes, it is an exciting time to be in agriculture and the CAFST today. We have been referred to as a hidden gem. I invite you to come visit us. You can find your place here at Fort Valley State University. Ag will take you where you want to be."

Noble opens the door to the new germplasm conservation walk-in cold storage unit on the university's farm.

SCIENTIFIC RESEARCH OPENS THE DOOR TO PH.D.

A Fort Valley State University alumna is continuing her research endeavors in plant science at a fellow 1890 Land-Grant Institution, the University of Maryland Eastern Shore (UMES).

BY LATASHA FORD

Lani Irvin, who earned her Master of Science in biotechnology at FVSU, is pursuing her doctorate in the agricultural sciences program at UMES in fall 2020. Her research will focus on grapes and gene editing to improve disease resistant varieties.

"I am excited to work on producing successful grapevine crops. Grapes are grown and consumed worldwide as fresh fruit, jams, jellies, juice and wine. They are beneficial for human and animal health because of the antioxidant and anti-inflammatory properties they possess," Irvin said.

The biotechnology graduate first became fascinated with plants while pursuing her bachelor's degree in biology at Middle Georgia State University. "I did not know until my senior year of undergrad that I was a plant person," Irvin said.

After graduating in 2015, she met Dr. Nirmal Joshee, a FVSU plant science professor, who exposed her to more plant research while pursuing her master's degree at FVSU.

"I have always been interested in alternative medicine and plant pathology," Irvin said. "I feel like everything on Earth is here for a purpose and I believe the cure for many diseases can be found in plants."

Upon graduating in 2017, she returned to her alma mater, Middle Georgia State University, to teach biology. However, she continues her research on Scutellaria at FVSU.

"Scutellaria is a medicinal plant. There are more than 360 species of Scutellaria found throughout the world," Irvin said. She read an article on the analysis of 13 herbal products that claimed to have Scutellaria in them. "What they came to find out is that only five of those products had what they claimed to have in them," she said.

Using biotechnology tools, Irvin wants to create a DNA barcode system similar to Universal Product Codes, which track trade items in stores.

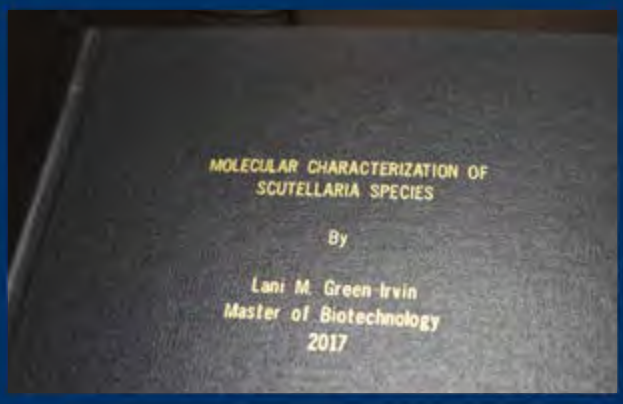
This led the biology instructor to research the molecular characterization of Scutellaria species for her graduate thesis project. She said approximately 70 percent of the global human population uses medicinal plants as a source of primary health care and in plant-based products, including shampoo, daily vitamins, medicine, toothpaste, face cream, spices and tea.

"If people expect to have Scutellaria in their herbal supplement, it should be there and should not be adulterated with anything that can cause harm to them or an inferior product," she said.

Her goal is to find a short sequence in plants that scientists can identify rapidly through the Barcode of Life Database (BOLD) and the GenBank sequence database. However, Irvin said this is a challenging process.

"With animal species, you can use one gene to differentiate species. With plants, you have to do a combination of genes. We chose two chloroplast genes and a nuclear gene and compared them to some of their nuclear DNA to see if we can find a sequence that is short enough to produce a barcode," Irvin said.

Throughout her three-year research, she worked on 22 Scutellaria species (collected by Joshee) that are located in the on-campus greenhouse. After collecting the leaves and extracting the DNA, she verified the purity of the sample and then amplified the DNA sequences. "When you amplify the specific regions, you can see the gene of interest," she explained.



Alumna Lani Irvin published her research on Scutellaria while pursuing her Master of Science in biotechnology degree at Fort Valley State University.

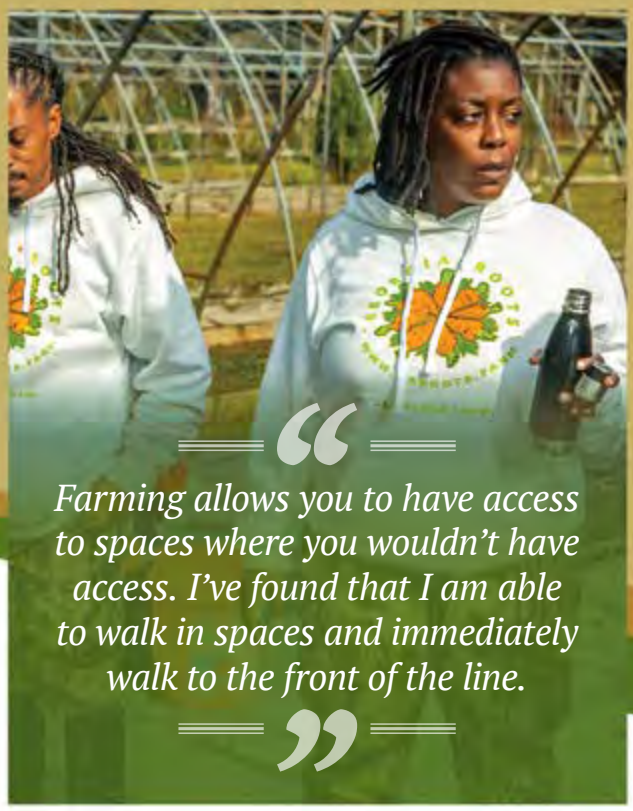
Closer to establishing a sequence, the FVSU alumna said the process involves feeding the data into a computer program that will provide the statistical analysis. She collaborates with a bioinformatics professor in Spain to interpret the data. This exercise will help her develop a DNA barcode for Scutellaria so that she can score its presence or absence using molecular tools.

In addition, the plant scientist is interested in Ocmulgee skullcap (Scutellaria ocmulgee) and the large-flowered skullcap (Scutellaria montana). The Ocmulgee skullcap (found in Georgia and South Carolina) and the large-flowered skullcap (found in Tennessee and Georgia) are vanishing in wild populations. Their conservation is an immediate concern.

Irvin said being a graduate student at FVSU gave her the opportunity and exposure that she needed to prepare for a doctorate program. She commended her involvement in graduate research, learning about instrumentations and interacting with fellow graduate students and researchers at international conferences.

For her barcoding research, Irvin received financial support as a graduate research assistant through the Strengthening Minority-Serving Institutions project, "Advancing Graduate Education in the STEM Disciplines for the Underserved African American and Low-Income American Population." The U.S. Department of Education funded this project.

DREAMS COME TRUE



Farming allows you to have access to spaces where you wouldn't have access. I've found that I am able to walk in spaces and immediately walk to the front of the line.

Horticulture graduate builds garden in Atlanta

BY CHANAE BRADLEY

In 2019, the Atlanta Journal Constitution released an article titled Five Black–Owned Businesses Killing the Agriculture Game Right Now.

Fort Valley State University alumna Kennise "Latricia" Elder, owner of Georgia Roots Urban Farm LLC, was one of the five featured southern entrepreneurs.

Elder, a 2014 horticulture graduate, said she had a dream in 2008 that revealed to her that she needed to attend Fort Valley State University.

"Literally in the dream I heard 'Attend Fort Valley State University and learn the science of the land,'" Elder said.

The Atlanta native left the city with her son in 2009, enrolled him in school in Peach County, while simultaneously working nights as a home health aide.

"I came on faith. I didn't have money or anything like that. It was just something that I knew I was supposed to do," she said.

Elder admits that returning to school was a challenge, but it allowed her to see her strength. "It made me realize that my rubber band had a lot more room in it for me to stretch," Elder said, describing her ability to balance school, parenting and a job.

While matriculating through the program, the College of Agriculture graduate said she received a top of the line agriculture education.

"I realized once I left the university, there really wasn't a question that someone could ask me about agriculture that I couldn't answer," she said.

As a horticulture major who specialized in fruit and vegetable production, Elder accredits the hands-on experiences at FVSU for providing her with a depth of knowledge. Some of the activities she recalls include laying out the rows for the

In 2011 alumna Kennise "Latricia" Elder and alumnus Levell Miles, examine a tomato plant in a barrel while working on the farm as students.

Pictured are kale and bok choy grown at Georgia Roots Urban Farm LLC.

Audrey assists in harvesting by picking and cutting collard greens at Georgia Roots Urban Farm LLC.

18-acre holistic organic farm, constructing hoop houses and harvesting pecans.

"I was pretty well versed," Elder said, expressing her opportunities within the College. She also participated in a summer internship in Fresno, California with the U.S. Department of Agriculture (USDA). Likewise she visited Milwaukee, Wisconsin, to learn from Will Allen, owner of Growing Power, a nonprofit organization that specializes in urban farming.

Dr. James Brown, a FVSU professor of horticulture who taught Elder, said he remembers how Elder took initiative early. "She's always had passion and she's doing exactly what she wanted to do," Brown said, referencing Elders' entrepreneurial pursuits.

Hence, Brown was not surprised when Elder purchased land before graduating in 2012.

Kennise and her husband, Kwesi Elder, purchased 10 acres of property in Bibb County. In 2015, the Elder's sold a portion of the property because of eminent domain, but remained farming at the smaller plot to stay current and active in agriculture.

As time progressed, the couple heard about a plot of land in Atlanta. With a desire to join the urban farming movement, the couple decided to take their talents to the city.

"At our age, we're too young to take a settle down project. We decided since we are from Atlanta, we needed to go to Atlanta to do this project," she said, referencing her and her husband's desire to conduct food production in the city.

In June 2019, Georgia Roots Urban Farm LLC, became an official farm store. The College Park-based farm produces leafy greens to include kale, collards and arugula, along with microgreens such as wheat grass and sunflower shoots. It is also home to nearly a dozen hoop houses and space where they educate the community.

"Our goal with this project is to show production in a city because you don't have a lot of spaces where people can grow and produce food that really affects communities" Elder said.

For the past three years, Georgia Roots Urban Farm partners with the city for its annual turkey giveaway. In 2019, the Elders' partnered with Atlanta Mayor Keisha Lance Bottoms and rapper TI during the annual turkey giveaway by supplying the vegetables for the event. Elder said connecting with the community for this event has led to discussions about collaborating in the city for additional projects.

Overall, the 44-year-old said she enjoys being a business owner and the opportunities it brings.

"Farming allows you to have access to spaces where you wouldn't have access. I've found that I am able to walk in spaces and immediately walk to the front of the line," she said.

For more information about Georgia Roots Urban Farm LLC, visit https://bit.ly/2sz2tdc or call 478-287-5004.

agCOMPLISH

Photos courtesy of Ervin Williams.


USDA

ADVOCATING FOR AGRICULTURE

ALUMNUS MENTORS THE NEXT GENERATION OF FARMERS

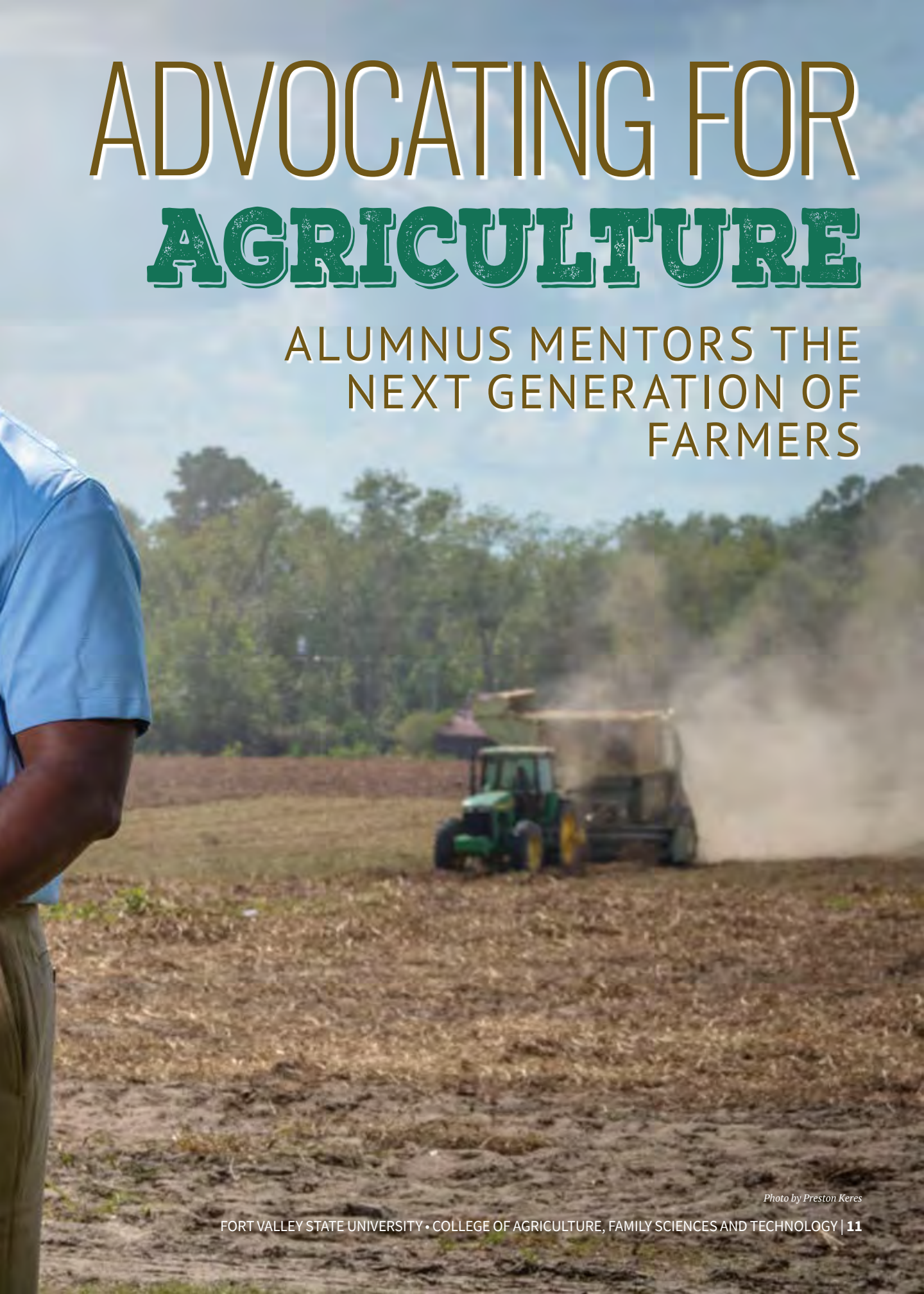


Photo by Preston Keres

BY LATASHA FORD

Rodney Brooks is among the first to serve in a role that gives beginning farmers the resources they need to grow in their careers and strengthen their communities.

The Fort Valley State University alumnus is the beginning farmer regional coordinator for the U.S. Department of Agriculture's (USDA) Farm Service Agency (FSA) in Leesburg, Georgia. Only he and two other coordinators currently serve in this role at the FSA throughout the country.

The FSA supports farming communities in all 50 states. Some services offered include price support, risk management, disaster assistance, conservation-related programs and loans.

"Many times dealing with the government can be overwhelming. My role is unique because I have a lot of latitude to engage and collaborate with different stakeholders and get the word out about the programs we have to benefit beginning farmers," Brooks said.

A native of Brooks County, Georgia, his effort and time spent on farms in his hometown at a young age taught him work ethic, as well as the value of education and agriculture. At age 14, he began working on local farms throughout his high school years, harvesting watermelons, peas and tobacco during the summer. Recalling the early mornings in the tobacco field, Brooks said he learned the significance of making progress as he worked his way from the beginning of the row to the end.

His strong work ethic continued as he made his way to FVSU's campus. Upon attending the summer orientation, the young freshman planned to major in business until he learned about the benefits of majoring in agricultural economics from retired agricultural professor Dr. Mack Nelson.

"I changed my major right there," Brooks said. "Every segment of general business can be correlated to agriculture."

This change further led to Brooks receiving an internship with his current employer through Levi Glover, former USDA 1890 liaison. "It was the gateway of getting into the USDA," declared Brooks, who earned a bachelor's degree in agricultural economics from FVSU in 2001.

In addition to the FSA internship, Brooks said the academic coursework at FVSU provided a good foundation for understanding the business

Rodney Brooks is the beginning farmer regional coordinator for the U.S. Department of Agriculture's (USDA) Farm Service Agency (FSA) in Leesburg, Georgia. He has been serving in this position since February 2016.

side of agriculture. This amplified his academic background, allowing him to continue his education at the University of Georgia (UGA), where he interned at the FSA's state office. He earned a master's degree in agricultural economics from UGA in 2003.

The following year, he became a farm loan officer for the FSA's Dawson office. Then, in 2015, the beginning farmer regional coordinator position became available. Brooks hesitated with the decision to apply, but after receiving encouragement from his coworkers, he trusted in his abilities to perform the job. He has been serving in his new position since February 2016.

Brooks, who is seldom in his office, appreciates the flexibility of his job. This allows him to spend time on the road speaking at workshops and conferences, including making on-farm visits. Disseminating knowledge to farmers and groups that represent farmers is important to him.

Rhonda Gordon, executive director of the Golden Triangle Resource, Conservation and Development (RC&D) Council in Blakely,

Georgia, has worked with Brooks over the last six years.

"Rodney has an innovative approach to working with beginning farmers and is an excellent mentor," she said. "He is extremely knowledgeable in his field and has forged numerous partnerships with other federal, state and local governmental entities, as well as many non-governmental organizations."

Gordon said Rodney is a member of the original steering committee for the Georgia Landowner Academy, which is an educational program empowering Georgia landowners to steward their land more effectively.

Brooks enjoys working for the government and looks forward to serving on a larger platform. He also desires to serve as a consultant for farmers or lead an agricultural organization.

In addition to assisting beginning farmers, the agricultural economics alumnus gives back to his hometown. He and his friends Dr. DeQuan Bivins, Eric Hixson, Dr. Henry T. Marable and Dr. Ulysses Marable III, who are also graduates of Brooks County High School and FVSU, offer a scholar award to a graduating senior at their former high school. They started this scholarship in 2006 with $500. After three years, they increased the award amount to $1,000.

"We understand for college students there are many expenses other than tuition," Brooks said. Recipients can use the money toward any expense as long as they are in college.

Brooks' advice to students is to enjoy their youth. "Do not rush adulthood, but prepare yourself," he said. "Something that I always tell kids, even my own kids, is there are two things in life that do not cost you anything and can take you a long way – good manners and respect."

Brooks and his wife, Shala, have an adult daughter, Druscilla, and a son, Rodney Jr., who will attend FVSU in fall 2020.

Photo by Preston Keres

Brooks visits Jon Jackson, who is the executive director of Comfort Farms in Milledgeville, Georgia.

FULFILLING A PURPOSE

BY RUSSELL BOONE, JR.

Christina Moody is living out her dream of caring for animals. Moody, 25, graduated from Fort Valley State University in fall 2019 with a degree in veterinary technology. A native of Rome, Georgia, Moody works as a veterinary technician at the University of Georgia's Veterinary Teaching Hospital.

"I triage incoming patients, obtain vital signs, restrain animals for doctor examinations, pull blood, run blood work, place intravenous catheters, monitor patients in our care and administer medications," the FVSU alumna said.

Working with animals was always an objective for Moody.

"I have loved animals all my life and all that anybody said to me was that I needed to be a veterinarian," Moody said. After graduating from high school, Moody enrolled at Oglethorpe University to pursue a degree in biology with the intention of going to veterinary school after graduation.

While working at her first veterinary clinic as a kennel technician and veterinary assistant, she discussed pursuing a career as a veterinary assistant with some of her coworkers.

"I explained to them that I really enjoyed what I was doing. They were the first to suggest that I could make a career out of being a nurse instead of a doctor," Moody said.

Likewise, Moody discovered she enjoyed the hands-on aspect of her work. She also discovered she would get more hands-on opportunities as a veterinary technician rather than a veterinarian. A coworker who also attended Oglethorpe told Moody about FVSU's Veterinary Technology program.

After graduating from Oglethorpe in 2016, Moody immediately enrolled in FVSU's program with the goal of becoming a certified veterinary technician.

"I enrolled at FVSU because it was the only university in Georgia that offered a bachelor's program in veterinary technology. I selected veterinary technology because it was the major required to obtain a license as a registered veterinary technician," Moody said.

While taking classes at FVSU, Moody also worked full time at Hudspeth Animal Hospital in Macon from March 2017 to July 2019 to help pay for school. As a full-time student and employee,

Moody organized her busy lifestyle by relying on to-do lists.

"It helped keep me on task and it was satisfying to cross off each item on the list as it was completed. It was a great mental push when I was fatigued and feeling unproductive," she said.

Indeed, it worked well for Moody as she graduated Summa Cum Laude (3.75-4.0 GPA) from FVSU.

As a full-time student, Moody relied heavily on advice from her instructors for guidance. She considers FVSU associate professor Dr. Saul Mofya and lead veterinary technician Karen Capps-McMullan as mentors. "Both of their

doors were always open whenever I needed to ask questions about my academic and professional experiences. If you are willing to put in the work, they are willing to put in the time," Moody said.

"Christina was an exemplary student, who set standards for her classmates to follow," Capps-McMullen said. "Her work ethic was as focused in the classroom as it was on the exam table. Christina is on her way to becoming an excellent veterinary technologist and possesses the potential to be a leader and future educator in the field," she said.

Moody's advice to students seeking a degree in veterinary technology at FVSU is to get as much practical, hands-on experience as possible.

"I would highly advise getting involved with a veterinary clinic as an employee, intern or volunteer. It makes a significant difference when you can see the concepts you are learning on paper in a real-life situation," Moody said.

The former FVSU student also discussed the many opportunities a student has with a degree in veterinary technology.

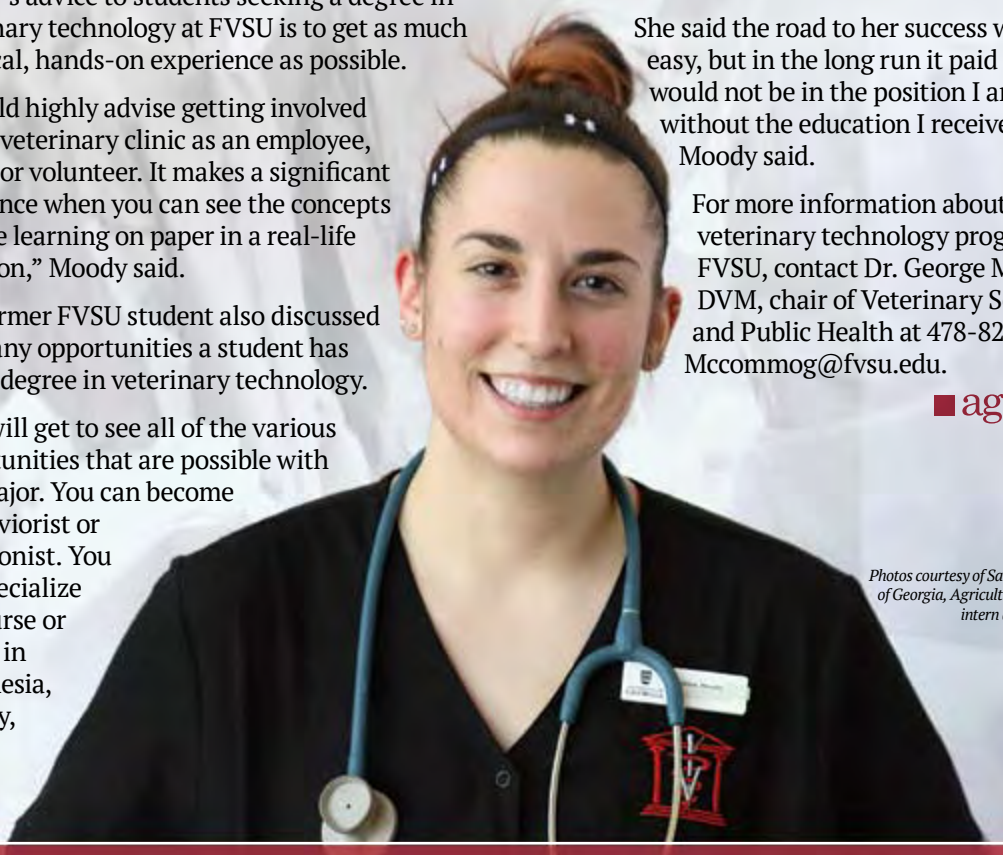
"You will get to see all of the various opportunities that are possible with this major. You can become a behaviorist or nutritionist. You can specialize as a nurse or doctor in anesthesia, surgery, dentistry or emergency care," Moody said. "Get into this field, find out what you enjoy, and I guarantee you that there is a career option for you. A major in veterinary science is the perfect first step," she said.

Moody's future plans include taking the board examinations for veterinary technicians. This will allow her to perform certain procedures without supervision. After that, she hopes to continue in the emergency room at the UGA Veterinary Teaching Hospital as a registered veterinary technician specializing in emergency medicine and critical care.

She said the road to her success was not easy, but in the long run it paid off. "I would not be in the position I am today without the education I received at FVSU," Moody said.

For more information about the veterinary technology program at FVSU, contact Dr. George McCommon, DVM, chair of Veterinary Science and Public Health at 478-825-6424 or Mccommog@fvsu.edu.

agCOMPLISH



Photos courtesy of Sadie Lackey, University of Georgia, Agricultural Communications intern and Christina Moody.

DID YOU KNOW?

Fort Valley State University is the only institution in Georgia to offer an accredited Bachelor of Science degree in veterinary technology?

JOB OUTLOOK

According to the U.S. Bureau of Labor Statistics, the projected percent change in employment from 2018 to 2028 is 19 percent for veterinary technicians and technologists. The average growth rate for all occupations is 5 percent.

For more information about the Bachelor of Science in veterinary technology at FVSU, call 478-825-6424 or visit https://bit.ly/2Ou3cEj.

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Veterinary Technologists and Technicians on the Internet at https://www.bls.gov/ooh/healthcare/veterinary-technologists-and-technicians.htm (visited January 15, 2020).

JUSTICE SERVED

Biotechnology graduate assists the Georgia Bureau of Investigation as a crime lab scientist

BY LATASHA FORD

From a small town West Virginia girl to a forensic scientist at the Georgia Bureau of Investigation (GBI), Carissa Jackson uses her detail-oriented abilities and laboratory experience to assist in investigating crimes.

Jackson is a crime lab scientist at the GBI headquarters in Decatur, Georgia, where she has worked for a year. She earned a Bachelor of Science in biology from Albany State University in 2011 and a Master of Science in biotechnology from Fort Valley State University in 2016.

What made you decide to pursue this career?

"It was kind of random. Once I graduated from Fort Valley State University, I did not know where I wanted to go. I ended up at Emory University doing research and then this position opened. I decided to try it because it was something new and different. I had the skills to do it, so I applied and it worked out."

What is unique about your job?

"I'm in training, so I do a lot of studying and observations. Typically, we get evidence and run three different sets of tests, which we do throughout the day. It is unique that the work we do actually helps in providing justice. You have to be focused, full of integrity and dedicated – that is with anything you do. Sometimes it can be tedious or repetitive, but you have to remember the main goal is, 'I am really here to help people.'"

How have you applied the knowledge you gained from studying at FVSU and ASU?

"They laid my foundation and made me versatile. I can go anywhere because of the two degrees that I earned."

Why did you pursue a degree in biotechnology at FVSU?

"I was inspired by a class and professor, Dr. Ashok Jain, during my senior year at Albany State University. I took a biotechnology class and fell in love. I changed from going to medical school to pursuing research at FVSU."

How has a career in science changed your life?

"It has opened up many possibilities. It makes me feel like I can do anything. I switched

Carissa Jackson earned a Master of Science in biotechnology from Fort Valley State University in 2016. She is pictured with her parents, along with Dr. Govind Kannan (left), FVSU's associate dean for research, and Dr. Nirmal Joshee (right), plant science professor.

from plant biotechnology to neurology research to forensic science, so there are no limits. You can do anything."

Have you always been interested in science?
"I grew up in West Virginia in a little town no one knows exist. I was there until the fourth grade. Up until then, I wanted to be a teacher or nurse because that is what I saw. We moved to a different city and saw a little more but the same things. My dad decided his daughters needed to see more. My parents, sisters and I packed up and moved to Georgia. We saw people doing everything. My aspirations changed from wanting to be a teacher or nurse to, 'I can actually be the doctor.' I thought, 'I can go all the way.' I took that biotechnology class and it opened up a completely different world. I realized I could make a difference doing this instead of being a doctor. That's how I ended up here."

What are you looking forward to gaining in the near future?
"Being able to come here and seeing that I can do anything, I will either remain here and work my way up or pursue a doctorate and start my own biotechnology company."

What advice would you give young girls interested in pursuing a career in science?
"Go for it. Do not be afraid of the challenges. For instance, chemistry was challenging for me. Instead of running from it, run at it. Do not be afraid to ask questions or ask for help. Do not let anything stop you. See your vision and run toward it."

"Do not be afraid of the challenges... Instead of running from it, run at it... Do not let anything stop you. See your vision and run toward it."

While at FVSU, Jackson worked as a graduate research assistant, where she was the first to develop an indirect organogenesis protocol for Scutellaria integrifolia through micropropagation techniques. In addition, she was the first to develop a successful genetic transformation protocol for Scutellaria integrifolia through Agrobacterium-mediated genetic transformation. Other research experiences at her alma mater include transforming E. coli and Agrobacterium tumefaciens bacteria for downstream genetic transformation of plant species.

agCOMPLISH

INVALUABLE INVE$TMENT

Graduate degree in public health leads to promotion, improves awareness

BY RUSSELL BOONE JR.

Meet Chris Calhoun, environmental health director, District 8-1 Valdosta, for the Georgia Department of Public Health (DPH) in Tifton. In 2015, he graduated with a Master of Public Health (MPH) degree from Fort Valley State University's College of Agriculture, Family Sciences and Technology.

The 38-year-old FVSU alumnus answered some questions about his experience in the public health program. He also explains why he enrolled and how the program helped him to advance professionally.

What are your main duties at your job and how long have you worked there?

As the district environmental health director, I manage the environmental health programs and staff for our 10 county district (Ben Hill, Berrien, Brooks, Cook, Echols, Irwin, Lanier, Lowndes, Tift, and Turner.) I ensure that staff are doing what is mandated by state law. We permit and inspect all food service establishments, tourist accommodations, public swimming pools, and body art establishments in an effort to minimize the spread of diseases in our communities. Additionally, I handle the budgeting for our programs, any personnel issues and make policy decisions on how we achieve our organizational goals. I've worked 12 years for DPH.

Where did you work prior to enrolling in the MPH program at FVSU and how did you find out about the program?

I worked as the environmental health specialist for Ben Hill and Irwin Counties with DPH. I went online and researched potential MPH programs. After reaching out to Dr. Oreta Samples, program coordinator, she came to one of our staff meetings to pitch the program to DPH personnel.

Why did you decide to enroll in the program?

Dr. Samples agreed to create a cohort for us. She and our other instructors would meet us in Tifton a few times a semester while other portions of the program were online. We ultimately decided to join this program because of the flexibility and because it was one of the lowest costing MPH programs that we found.

How helpful were your instructors and how convenient were the online classes?

They were a tremendous help. They were always willing to speak with us or even schedule additional meetings if we needed them. Since we (DPH staff) were all working full time, having a good portion of the classwork online enabled us to keep our lives somewhat normal. I would come home and take care of my normal family duties. Finally, when the kids were in bed, I'd work on my MPH assignments. Many nights, I wouldn't go to bed until 1or 2 a.m., then get back up at 5:30 a.m. to start all over again. It was rough, but would have been much worse if we were

required to attend every class in person.

When you successfully completed the program, how did you feel and what were your thoughts?

I was excited, but relieved when I completed the program. My classmates and I completed the program in 15 months, which was pretty difficult considering we both had full time jobs and families. I didn't sleep much in that year or so, but it was well worth it.

How has your degree from FVSU helped you in your professional development?

First and foremost, I was able to get a 10 percent increase in pay, so that's a huge plus for me and my family. Other than that, the program helped bridge some gaps I had in my prior understanding and awareness of public health.

If someone asked you about the MPH program, what would be your sales pitch?

This program will give you a well-rounded perspective on a number of public health areas. It will help you decide your direction if you're currently unsure. If you're already employed in public health, it will most likely increase your paycheck! It's the most bang for your buck as well. A win-win.

You stated earlier that you have some co-workers enrolled in the program. How many of them enrolled and what do they have to say about the program?

So far, I think our district had six people complete the program, including myself. We all feel the same way. It helped us have a better perspective of several different areas of public health. We'd recommend the program to anyone considering a career in public health.

Chris Calhoun is the environmental health director for the Georgia Department of Health (DPH). Calhoun earned his Master of Public Health (MPH) degree from FVSU while working full time for the DPH and taking care of his family.

For more information about the Master of Public Health degree at FVSU, contact Dr. Oreta Samples, program coordinator and assistant professor, at 478-825-6904 or sampleso@fvsu.edu.

agCOMPLISH

STUDENTS ON THE RISE

Students attend a seminar to learn about summer enrichment program

More than 35 Fort Valley State University students received first-hand information about the Plant Agricultural Biology Graduate Admission Pathway (PABGAP) program in fall 2019.

PABGAP is an eight-week summer program for students attending FVSU and Tuskegee University. Selected participants partake in a summer enrichment program at the University of California-Davis (UC-Davis). Participants receive eight weeks of mentoring on campus where they live at no cost.

Upon acceptance, selected participants receive free travel to California, free lodging and meals. They also receive mentoring before and after the process. At the program's ending, funding is available for one family member's visit to California.

Dr. John Harada, a professor in the Department of Plant Biology at UC-Davis, spoke to students during the seminar. He said PABGAP was created to set up pipelines between HBCU'S and the University of California.

"We wanted a program that focused on plants and agriculture. Fort Valley State and Tuskegee were a natural fit," Harada said. The UC-Davis faculty member said the goal is to try to increase the numbers of minority students to have a more diverse workforce.

Likewise, students who participated in the 2019 PABGAP program shared their experiences.

Sheriff-Seedy Phaal, an FVSU second-year biotechnology graduate student, said his summer experience was phenomenal. The Gambia native has an interest in medicinal plants and spent his summer studying pomegranates. He said his experience at U.C. Davis confirmed his decision to obtain a Ph.D. once he completes his graduate degree at FVSU.

Bryshal Moore, a 27-year-old FVSU biotechnology graduate student, studied tomato plants during her 2019 PABGAP summer experience. The Mobile, Alabama native has a desire to earn a Ph.D. and work in the industry once completing her education.

The PABGAP program is funded through a $300,000 grant provided by the University of California System. The program is in its fourth year and accepting applicants for summer 2020. For more information about PABGAP, visit https://bit.ly/2IjzKxG or contact Dr. Dhir at 478-822-1057 or dhirs0@fvsu.edu.

FVSU Master of Public Health Program CARES about serving others

FVSU professor of public health Dr. Hamida Sharif-Harris, and MPH students, initiated the Baby Diapers and Wipes Drive to collect infant and toddler diapers and wipes across FVSU's campus for Hurricane Dorian survivors. This kicked off the students' new campaign called FVSU CARES (Community Action in Response to Emergency Situations).

The name came from Elliot Robinson, a first-year MPH student who works for the 30th Adjutant General (Reception) Battalion in Fort Benning, Georgia. Thanking his colleagues for donating products, he commended the opportunity to collaborate with like-minded people. "We are all connected," he said. "It is an honor to provide selfless service."

Another student, Rachel Serrano, who is a second-year MPH student, contacted a friend, Ben Varner of Adcom Worldwide in Atlanta, to help with logistics. Serrano said she formerly served as a military reservist with Varner. He volunteered to handle all the logistics of shipping the donated products to the Miami drop-off location.

"I am always drawn to things that help give back to people. That is the reason I served in the military and the reason I am earning a public health degree. It is nice to do something bigger than yourself," she said. In addition, MPH student Walter Miller invited FVSU undergraduates to participate by creating a hashtag contest. He has received 30 hashtag ideas so far. He plans to award $100 to the winner.

Other efforts included a student using her undergraduate communications skills to create a flyer. Another student asked the Center for Student Engagement if FVSU undergraduates could receive community service hours for their donations. Undergraduates will now receive one service hour per pack of baby wipes and two hours per pack of diapers. "In a span of two hours, we had a complete program put together," Sharif-Harris said, smiling. "I was trying to tap into these skills with them so they can affect change. If they can do this for a one-time emergency, imagine what they can do for the Fort Valley community."

The 20-year public health profes-

sional said she wanted her students to think about what they could do to make Fort Valley healthier and safer. "This was their initial eye opener," she said.

Her students are now in the process of creating a formal MPH student organization to give back locally and globally.

For more information, contact Sharif-Harris at hamidah.harris@fvsu.edu or 478-822-1028.

Biotechnology graduate student uses soilless growing for food sustainability

Fort Valley State University biotechnology graduate student D'Amber Jones decided to explore a sustainable solution through a non-traditional approach — growing plants without soil.

"Population growth puts a demand on food production, and food production puts a demand on our already finite natural resources," she said. "Seeing how hydroponic systems could be used to help alleviate or conserve our water and food crisis inspired me," Jones said.

This motivation led her to research cultivated plants under hydroponic conditions compared to traditional agriculture.

Currently in the first phase of her research, the 29-year-old is growing bean and cucumber plants using a deep water culture hydroponic system (suspending a plant's roots in a solution of nutrient-rich, oxygenated water) and a tower garden (a vertical aeroponic growing system).

She said the advantages of hydroponic farming include high food production, water and land conservation, space efficiency and easy operation. "It could help expand self-sufficiency in communities for farmers and students alike," she noted.

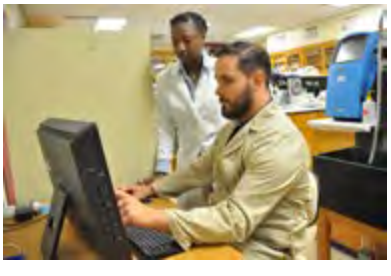
In addition to bean and cucumber plants, Jones is growing mint using hydroponic systems and is interested in growing stevia plants. Both stevia and mint have health benefits. Stevia is non-caloric, possesses anti-inflammatory properties and regulates insulin and glucose levels. Jones said her mother sparked her interest in growing stevia because she has diabetes and had to change her eating habits.

Jones, who earned a bachelor's degree in plant science-biotechnology from FVSU in 2018, said her overall goal is to help people by sharing knowledge through her research.

After graduation, the young scientist aspires to be an entrepreneur who assists people interested in hydroponic farming. She also wants to own a greenhouse and create her very own hydroponic system.

For more information about FVSU's Master of Science in Biotechnology Program, visit https://bit.ly/2RMWcWL.

Students apply bioinformatics to agriculture



Learning to code using bioinformatics, biotechnology graduate students Zandria Chambers and Matthew Durst-Scarlett, apply those skills to their agricultural research projects.

Chambers uses bioinformatics to depict her research on hydrophobic aerogels. The 26-year-old from Albany, Georgia, is attempting to create a reusable green product by using cellulose, which comes from a residual waste. "Bioinformatics connects all of the dots statistically," she said. "We use these programs to depict the problem and solution in a 3D way."

Durst-Scarlett applies bioinformatics to his research on pest management in grain storage. The 27-year-old from Warner Robins, Georgia, is investigating wasps to control the problem. "In biology, we tend to deal with very large sets of data. With bioinformatics, we can organize and manipulate that data so we can see it in different ways, store it and then share it with other scientists to collaborate on things," he said.

Dr. Ramana Gosukonda, a FVSU agricultural sciences professor, is the first to teach bioinformatics through the Principles of Biotechnology course at a Historically Black University.

"There is no other way for students to continue professionally without knowing bioinformatics because it is highly integrated within agricultural research," he said.

Gosukonda said the main component in bioinformatics is the research process. In addition to providing students with hands-on training, he looks forward to expanding the bioinformatics curriculum with additional modules and training more faculty to teach the courses.

"Bioinformatics is so dynamic. What I learned today may not be the same in two years," he said. "My goal is to make bioinformatics a major or minor at FVSU. Currently, none of the HBCUs offer it as a major or concentration for undergraduate students."

The U.S. Department of Agriculture's (USDA) National Institute of Food and Agriculture (NIFA) awarded Gosukonda a $149,999 1890 Capacity Building Grant to create bioinformatics courses and a laboratory for hands-on training.

For more information about bioinformatics, contact Gosukonda at 478-925-6836 or gosukonr@fvsu.edu.

FORT VALLEY STATE UNIVERSITY
EMPOWER the POSSIBLE.
1895

FVSUag
COLLEGE OF AGRICULTURE, FAMILY SCIENCES AND TECHNOLOGY

AGRICULTURAL COMMUNICATIONS
P.O. BOX 4061
FORT VALLEY STATE UNIVERSITY
FORT VALLEY, GEORGIA 31030-4313
AG.FVSU.EDU

Are you an alumnus or know an alumnus of Fort Valley State University's College of Agriculture and have an interesting story to tell?

Contact us at fvsu.ag@gmail.com