

MTSU School of Agriculture

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Highlights for 2020-21 Academic Year

By Dr. Jessica Carter, Director

- The COVID-19 pandemic certainly changed this past academic year. We offered a variety of course types including conventional, web-assisted, hybrid, remote, and online formats. We are proud of our students, staff, and faculty for their hard work during this most difficult school year.
- A new minor in **Precision Agriculture** is now offered beginning in the Fall 2021 semester. This minor includes a new course, PLSO 3700 Fundamentals of Precision Agriculture, as well as other courses in Plant & Soil Science, Aerospace, and Geosciences.
- We hosted the annual Agriculture Awards Banquet a little differently this year, due to COVID restrictions. We had an Awards Ceremony in the KUC Theater and were able to present scholarships and awards to our students. We look forward to being able to host a “normal” awards program and banquet next year and hope to see scholarship donors, alumni, and friends in the audience.

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- We are ready for a “normal” fall semester with in person classes and events. Be sure to check our website (www.mtsu.edu/agriculture) and Facebook page (MTSU School of Agriculture) for updates.
- **Upcoming events—please check our department website for updates throughout the year:**
 - ♦ Sept. 21—Ag Ed Conclave, Stark Ag Building, Room 125
 - ♦ Sept. 29—Raider Roundup Career Development and Exploration event for high school FFA students; check our website for updates.
 - ♦ October 1-2—Heart of Tennessee Jr Meat Goat Classic, TN Livestock Center.
 - ♦ October 30—Homecoming, football game starts at 2:30 pm.
 - ♦ November 11— Block & Bridle club hosts Little International.

Quest for Endowed Scholarship in Honor of Retired Faculty Member.

Dr. Cliff Ricketts was a Professor of Agricultural Education at the MTSU School of Agriculture for 37 years from. His distinguished academic career focused on working with students who aspired to teach Agricultural Education at the secondary education level. Ricketts began the Agricultural Education Program at MTSU and developed the first dual-credit grant in the State of Tennessee to allow high school students to receive college credit for courses through MTSU while attending high school. Dr. Ricketts, a native of Wilson County, TN, is internationally known for his alternative fuel research. He has run engines off ethanol from corn, methane from cow manure, soybean oil, solar electric, hydrogen from water, natural gas, and developed a vehicle that ran off four different fuels: gas, ethanol, electric and hydrogen from water. He and a team of MTSU students went coast to coast on only sun and hydrogen in 2013. Before his retirement in 2016, he received many awards and accolades including MTSU Outstanding Teacher Award, MTSU Outstanding Public Service Award, and MTSU Career Achievement Award. During his time at MTSU, Dr. Ricketts positively influenced thousands of students through his courses addressing agricultural education, agricultural mechanics, horticulture, and leadership. We are excited to announce the creation and fundraising efforts of the Dr. Cliff Ricketts Endowed Scholarship. This scholarship will support incoming freshmen who participated in FFA and plan to pursue agricultural education teacher licensure. If you would like to contribute to this endowment, you can do so online at www.mtsu.edu/agriculture, click on “Support Ag” or use this link:

www.mtsu.edu/supportricketts



School of Agriculture News

Agriculture Faculty News

Congratulations to the following MTSU School of Agriculture faculty members for receiving awards from the College of Basic & Applied Science for the 2020-21 academic year!!!

Dr. Rhonda Hoffman —CBAS Teaching Excellence Award

Dr. Iris Gao—CBAS Research Award

Matthew Wade—CBAS Exemplary Staff Award

Congratulations to the following faculty members who were recognized during the annual MTSU fall faculty meeting in August for outstanding achievements!

Dr. Holly Spooner— Public Service award

Dr. Song Cui — Special Projects Award

Dr. Nate Phillips — promoted to Professor!

Dr. Jerry Williams, 1934-2021

The MTSU flag was flown at half-staff in January in memory of Dr. Jerry Wright Williams, who passed away on Jan. 27, 2021. Dr. Williams was employed with MTSU from September 1, 1966 until his retirement on August 9, 2003. He was a Professor in the School of Agriculture.

Dr. Williams graduated from Dickson High School in 1952. After graduating high school he proudly served his country in the United States Air Force. He received his B.S. and Masters degrees from Texas A & M University in Commerce, Texas and his Ph.D. from the University of Tennessee at Knoxville, TN. His love of teaching and passion of raising and showing Arabian Horses will be his legacy and through the Dr. Jerry Williams Endowed Scholarship Fund, students from MTSU desiring to attend Veterinary School will benefit from that passion for years to come. He developed a passion for horses at a very early age, which resulted in a lifetime of love that ultimately led to a distinguished career as a Professor and Director of the Horse Science Program at Middle Tennessee State University for 37 years. Jerry was especially proud of his connection with all the "Boys" of the Alpha Gamma Rho Fraternity, which led to many lifelong friendships. He married Glenda Jane Moore of Van Buren, Arkansas in 1961 and lived in Murfreesboro, Tennessee for more than 40 years. At her death they were married for 57 years.

Congratulations to our executive aide, **Debbie Strobel** on her retirement! She completed 19 years at MTSU and will be missed by the School of Agriculture faculty, staff & students. Thank you for your service to our department! We hope that you are able to spend more time with your family (especially those grandkids!) and enjoy expanding your bee operation.



State FFA Convention

Faculty and staff attended the 2021 State FFA Convention. Pictured (l to r): Wesley Foster, Dr. Alanna Vaught, Ariel Herrin Higgins, and Emily Haley. Foster and Haley are MTSU School of Agriculture alumni and serve as Agricultural instructors/FFA advisors at Cannon Co. High School. We appreciate our Ag Teacher alumni—they are often our best recruiters!!



Agricultural Awards Ceremony

Dr. Downs served as the MC for the Agricultural Awards Ceremony, held in the KUC theater. Approximately 60 students were recognized for scholarships and departmental awards. We look forward to a larger celebration and banquet in 2022.



School of Agriculture News, cont.

Agriculture faculty have been busy writing grant and securing external funding. Here are a few highlights:

1. Dr. Chaney Mosley serves as a co-investigator for a USDA funded grant that supports research and outreach regarding farmer suicide. The three-year, \$7.2 million southern region project will span 13 states and two U.S. territories, and is being coordinated by the University of Tennessee Institute of Agriculture. Partner organizations in addition to MTSU represent agencies from land-grant institutions to government agencies, commodity and lending groups and nonprofit organizations. <https://mtsunews.com/mtsu-aids-effort-to-battle-farmer-rancher-stress/>

2. MTSU creates a “Virtual Farm” to educate kids during the pandemic. The university’s Center for Health and Human Services has received an \$816,000 grant from the [USDA](#) to support the proposed “STEMsational Ag: The Virtual Farm” project. In partnership with the [School of Agriculture](#)’s Fermentation Science Program, the center will administer the project as a way to provide both formal and informal educational content for K-14 students throughout an 11-state region. Dr. Tony Johnston and Dr. Keely O’Brien serve as co-investigators for this project. The full article can be found here: <https://mtsunews.com/virtual-farm-usda-chhs-mtsu/>

3. MTSU center received \$56,000 for state grant for water pollution education. The [Tennessee Department of Environment and Conservation](#) has provided CHHS with a \$56,000 grant for a public education campaign about water quality and the impact of nutrient runoff from Tennessee to the **Gulf of Mexico** on human and environmental health. Dr. Samuel Haruna serves as a CoPI on this project. <https://mtsunews.com/chhs-water-pollution-grant-2021/> - .

4. Over the next three years, with a \$749,999 grant from the USDA National Institute of Food and Agriculture, faculty from MTSU’s School of Agriculture will investigate soil management practices for improved soil health and their related effects on crop and animal productivity, food quality, and economic viability of integrated farming systems. Researchers at MTSU will lead a state-wide collaborative team that includes faculty from Tennessee Tech University and UT Martin to explore how various soil management practices might food production outcomes, with an emphasis on equipping current producers with resources to better inform on-farm decision making practices and providing future producers with access to information. Chaney Mosley, an assistant professor of agricultural education in the MTSU School of Agriculture, will serve as the project leader. “Our goals are clear. First, we aim to identify better management practices to improve crop and pasture production for enhanced productivity and food quality. Second, we will establish a food system training center to provide support in the areas of production, processing, preservation, safety, and food science education” says Mosley. The food system training center will be housed on MTSU campus and will host training sessions for producers, food entrepreneurs, agricultural education teachers, and students. Other MTSU agriculture faculty working on this project are Samuel Haruna, Keely O’Brien, Kishor Luitel, Jessica Carter, Kevin Downs, and Alanna Vaught.

Plant Sales: The Plant & Soil Science Club had a very successful Spring Plant sale!! Thanks to all who supported the sale. They had many options to choose from such as, baskets and bedding plants, perennials, fresh herbs, fresh vegetables, and fruits/edible perennials. Please check our Facebook page for announcement on upcoming plant sales.



Undergraduate Research & Honor's Thesis Projects

Undergraduate Research Experiences and Creative Activity committee (URECA) provides funding opportunities for many undergraduate students to participate in research projects. Several Agriculture majors recently completed research projects funded by URECA and/or Honor's Thesis projects. This list includes students and their mentors:

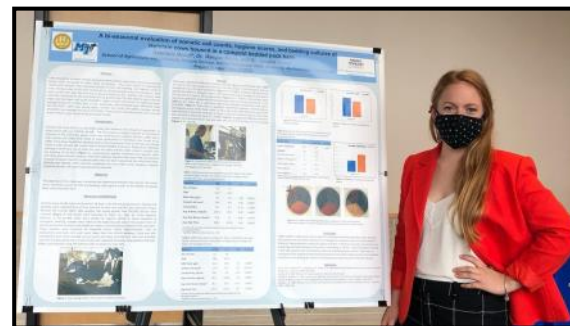
Student	Mentor
Emily Stafford	Dr. Kevin Downs
Gabby Harder	Dr. Kevin Downs
Ashton Bazzell	Dr. Jessica Carter
Sammy Mould	Dr. Jessica Carter
Sarah Kozuszek	Dr. Jessica Carter
Alison Blanton	Dr. Maegan Hollis
Jessy Shearer	Dr. Maegan Hollis
Jake Maisano	Dr. Keely O'Brien
Haley Brazel	Dr. Tony Johnston
Rebekah Riley	Dr. Tony Johnston
Elizabeth Clippard	Drs. Samuel Haruna/Song Cui
Robert Conner	Drs. Samuel Haruna/Song Cui
Hunter Depree	Dr. Samuel Haruna
Madison Edwards	Dr. Samuel Haruna
Chris Hall	Dr. Samuel Haruna
Devin Lackey	Dr. Samuel Haruna
Kathryn McCanless	Dr. Samuel Haruna
Brendan Mitchell-Fostyk	Dr. Samuel Haruna
Jordan Jungen	Dr. Seockmo Ku
Jordan Bevill	Dr. Seockmo Ku
Katherine Everett	Dr. Seockmo Ku
Ukti Sheth	Dr. Seockmo Ku
Gina Bishara	Dr. Iris Gao
Emily Oppman	Dr. Iris Gao
Raja Pandey	Dr. Iris Gao
Hengxuan Wu	Dr. Iris Gao
Ravi Neelipally	Dr. Song Cui

*In addition, Ag faculty worked with 6 M.S. students, 2 Ph.D. students, and 1 post doctoral researcher. Our faculty and students had an extremely productive year publishing **33 manuscripts** in several different discipline specific journals which is outstanding!

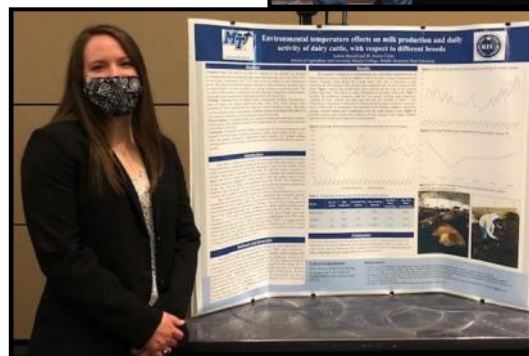
Tennessee Academy of Science

Congratulations to Sammy Mould, who presented an undergraduate research poster at the 2021 Tennessee Academy of Science (pictured on top right). Sammy placed second in the undergraduate division for Agriculture!

Our students were well represented during Scholar's Week. Congratulations to Emily Stafford for placing 2nd in the CBAS undergraduate research poster contest and to all of our students and their faculty mentors on a job well done!!



Sammy Mould of Liberty, Tenn., presented her research poster at the Tennessee Academy of Science and Fall Research Showcase.



Ag students presented research at the MTSU Scholar's Day in April: Emily Stafford (top; placed 2nd in the CBAS undergraduate poster contest), Christopher Hall and Robert Conner (middle), and Ashton Bazzell (bottom).

2021-22 Agriculture Scholarship Award Recipients

Adams Family Endowment..... Jessika Benson
 Adams Family Endowment.....Charity Chandler
 Adams Family Endowment.....Erin Coleman
 Agriculture Endowment.....Tabitha Gill
 Agriculture Endowment.....Caroline Haynes
 Agriculture Endowment.....Laura Romero
 Agriculture Endowment.....Emily Stafford
 Agriculture Endowment.....Emily Traylor
 Boxwood Farm.....Savannah Scott
 Billie & Burton Towry Endowment.....Mason Coble
 Campbell Family Endowment.....Jacob Tipton
 Catherine Ellington.....Myia Trotter
 Farm Credit Mid America.....Wade Moore
 Dr. Harley W. Fouch Endowment.....Jake Duke
 Dr. Robert Garrigus Endowment.....Bridget Robertson
 Dr. Robert Garrigus Endowment.....Abigail McConnell
 Fowler and Ruth Nickle.....Annie Whitefield
 Hayden Memorial.....Andrew Hamblen
 Heritage Farm.....Katherine Everet
 Hugh Burrum.....Louann Braunwalder
 Hugh Burrum.....Kaly Rouse
 Robert Alexander.....Mia Kuhnle
 Robert Jarrell Memorial.....Samantha Lewis
 Thomas. F. Rowlett Memorial.....Journee Davis
 TN Farmers Coop.....Luke Alexander
 TN Farmers Coop.....Luke Elrod
 TN Farmers Coop.....Rhiannon Overcast
 TN Farmers Coop.....Neil Slone
 Theodore Bigger.....Loren Huling
 Nat. Council of Farmer Coop. Foundation..... Calvin Hood
 (In memory of Kenneth Nixon)

Incoming Freshman Scholarship Awards:

TN Farmers Coop.....Kailee Scott
 Adams Family Endowment.....Lyndsey White
 Adams Family Endowment.....Sydney Keeney
 Carolyn Gill Endowment.....Jordan Martin
 Joe Jack & Jerry Dement Endowment.....Seth Dearden
 Rehabilitation Corp. of TN.....Farrayn Arnold
 Rehabilitation Corp. of TN.....Cali Mason
 Rehabilitation Corp. of TN.....Hensley McCrary
 Rehabilitation Corp. of TN.....Brailey McFarlin
 Agriculture Endowment.....Madison McDonald
 Agriculture Dept. Scholarship.....Kaitlin Burton

Scholarships awarded at the Horse Science Banquet:

J.W. Cross Scholarship.....Mackenzie Latimer
 Kitty Adams Scholarship.....Jordan Dillenbeck
 Mark Moskovitz.....Eden Bodary
 Tennessee Horse Council.....Taylor Meek
 Seve Scholarship.....Austin Aguilera

Outstanding Senior Awards

**Robert A. Alexander
 Outstanding
 Agribusiness Senior Award**
 Haley Brazel



**Outstanding Animal Science
 Senior Award**
 Gabrielle "Sammy" Mould



**Theodore C. Bigger
 Outstanding Plant & Soil
 Science Senior Award**
 Elizabeth Clippard



**B.B. Gracy, Jr. Outstanding
 Agriculture Senior Award**
 Lindsey Parsley



**Sam Paschal Award for
 Outstanding Horse Science Senior**
 Brianna Dannehl
Outstanding Fermentation Science Senior
 Polina Ogboh

Senior Honor Students (GPA 3.8 or higher):

Alison Blanton	Destinee Magley-Rosen
Haley Brazel	Taylor Meek
Brianna Dannehl	Anna Moore
Sarah Drescher	Gabrielle Mould
Jake Duke	Polina Ogboh
Susan Evans	Lindsey Parsley
Alison Faulk	Olivia Peters
Jennifer Gutierrez	Jacob Tipton

Stock Horse Team brings home top national honors from Texas

On April 13, 2021 the Middle Tennessee State University Stock Horse Team hauled 5 horses and 6 students to Sweetwater, Texas to compete at the American Stock Horse Association Collegiate and National Show. Six MTSU students and horses competed collegiately and nationally under the guidance of coach and MTSU Horse Science Faculty, Andrea Rego. Students competed in cow horse, pleasure, reining and trail events. The raiders earned 5 individual national and reserve national champion titles. The team placed 4th overall in a competitive division 2. "They've worked hard for this since 2019 and after a 2020 spring season of cancellations they were driven to meet their goals. The team focused a lot on mental skills training and incorporating confidence and accuracy in the practice pen, so that it reflected in their performances," said Rego. "I noticed more precise and assertive showing from our preparations," she added. "I'm very pleased with the team members' support of one another. I think the obstacles they've been through over the last year have set them up to appreciate every opportunity they can get to show and make it count."

Team member Taylor Meek was awarded the Sumrall Sportsmanship Award. This was chosen by the national show officials and coaches to find a college rider that exemplified the character of late Brian Sumrall, a influential stock horse clinician, judge, and executive committee member of ASHA since its inception.



MTSU Stock Horse team (left to right) Rachel Petree, Lindsay Gilleland, Louann Braunwalder, Tayler Meek, JoBeth Scarlett, Jordan Dillenbeck, Andrea Rego (coach)



*(above) Taylor Meek, national sportsmanship award winner and National Limited Non Pro division champion
(left) Jordan Dillenbeck National Novice reserve champion*

MTSU Equestrian goes undefeated and claims YEDA champion title

The term “Rise above” comes to mind when referring to the 2020-2021 school year, especially for the MTSU Equestrian Team. With unprecedented circumstances presented to the team, there were a couple options: don’t compete; or compete, with travel regulations that required no overnight travel to multiple-day competitions, special permission for horse show hosting, and making the most of limited shows. Despite spending many extra hours in vehicles, while still preparing horses for competitions and being full-time college students, the team rallied together to an unforgettable season. They went undefeated for the entire season in western, including winning the 2021 YEDA Collegiate Celebration, besting some of the top teams from



MTSU Equestrian Team members at YEDA & Coaches Ariel Higgins (left) Assistant Andrea Rego (right)

across the country. The hunter seat shows were limited but were still met with the same determination, even winning a High Point Team award at one show, despite showing a more limited troop. Above all, the team proved themselves to be a great group, capable of working together to achieve goals that seemed distant and impossible at one point.

The team traveled to Cleveland, TN and brought 14 horses to provide for the YEDA collegiate celebration. Four horses brought home “horse of the show” honors and were used as a recruitment tool as they were provided for the youth competition days after. Team members were not only responsible for representing the team and preparing themselves for competition, but they excelled in taking care of the horses daily and prepping them to compete as well. The team had two graduating seniors this year competing in the YEDA collegiate celebration. Lindsay Gilleland (pictured above) competed in Open reining and horsemanship classes. Nikki Dyer (pictured right) competed in the level 1 horsemanship.



Horse Science faculty gain university and national recognition with awards

The **Equine Science Society's Outstanding Educator award** was presented to **Dr. Rhonda Hoffman**. This was one of six major awards the organization presented and recognizes an individual who has demonstrated excellence in the area of equine education, either to students or persons in the horse industry, the organization said in its website announcement. "I can't put into words how much this means to get that award," said Hoffman, a member of the Equine Science Society since 1993. "I've been nominated before, but never received it and so this was a really special year." School of Agriculture Director **Jessica Carter** nominated Hoffman. Hoffman recently teamed with **Warren Evans, Jessica Petersen** and **Dale Van Vleck** to co-author a revised edition of "The Horse," a textbook relating scientific principles to practical applications for experienced horse owners, students, extension agents and horse enthusiasts.



Current and alumni graduate students with faculty members Dr. Rhonda Hoffman and Dr. Holly Spooner

Andrea Rego was named **MTSU's 2021 Student Organization Advisor of the Year** for coaching the Stock Horse Team. She was nominated by members of the stock horse team and voted by student organization officers to receive this award. Students appreciated efforts made by Rego to continue competing during a tough year of shut downs from the pandemic.

Dr. Holly Spooner earns university award for **Outstanding Public Service**. Dr. Spooner received recognition in Fall of 2020 for her efforts in the community and horse industry. Dr. Spooner dedicates her time to facilitating local and national horse industry functions with Pony of the Americas, American Youth Horse Council, FFA, and 4H groups.

Graduate students and alumni succeed at equine science society symposium

MTSU students were among dozens of graduate and 157 presenters altogether at the bi-annual meeting of scientists, equine scientists, veterinarians, feed manufacturers and other horse enthusiasts representing 18 nations. Horse Science alumni presenting from other schools included Delaney Rostad, who earned her bachelor's at MTSU and is now in the master's program at the University of Tennessee-Knoxville; Erica Macon, who earned her master's at MTSU and is in the University of Kentucky doctoral program; and Chloe Wires, who earned her master's at MTSU and is in the Purdue University doctoral program. **Kaylee Layton** earned accolades for **second place in the Teaching & Extension graduate competition** and **second overall in the Journal of Equine Veterinary Science Graduate Publication Award**. (photo to the right). "It was an honor and I'm really grateful to have received both awards," Layton said. "It was such a great opportunity to be able to present my research and the fact that it was an international symposium made it an awesome experience. It's really cool to see all the research being done worldwide to benefit the horse industry." Layton also expressed her gratitude "for the faculty here in the MTSU Horse Science program. They were so influential and helpful through my research."



MTSU bred stallion, The Royal Raider achieves international champion title

MTSU Horse Science was well represented at the 43rd annual International Pleasure and Colt Grand Championship Tennessee Walking Horse Show the last week of July.

Stellar showman and Horse Barn manager, Mr. Jeremy Carlton showed MTSU's 6-year-old black stallion, The Royal Raider. The Royal Raider (aka "Larry") won the stallion division by unanimous decision and immediately returned to the ring to repeat a unanimous win in the In Hand Championship.

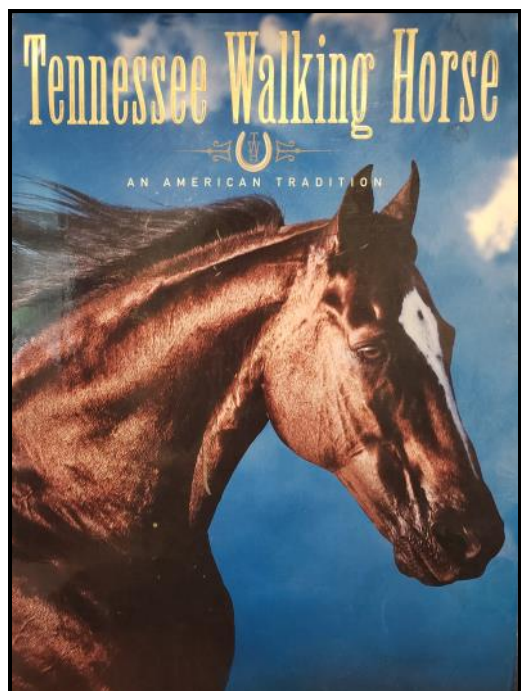
The Royal Raider is a True Blue 3rd generation MTSU horse. He is the son of well-known walking horse sire, Pride's Royal Master and out of Hey Dare mare, Justa Innocent Dare. We are anxiously waiting for his first crop of foals, due to arrive this Fall.

MTSU mare, Royal Cup, by Pride's Royal Master out of Seve's Sweet Spot, was shown by Assistant Horse Barn Manager, Miss Kim White, and earned an outstanding reserve in the In Hand Mare class.

Not to be left out, MTSU stallion, Rowdy Rev, sired ribbon-winning filly, Sister Rowdy. Sister Rowdy is another True Blue walking horse out of Justa Innocent Dare and is a half-sister to The Royal Raider.



Jeremy Carlton and The Royal Raider, 2006 MTSU stallion born & raised.



MTSU stallion "Hey Dare" laid to rest

Hey Dare (photo left), a patriarch of the MTSU Horse Science family was laid to rest this summer on Dr. Dave Whitaker's farm. We feel immensely privileged to have had him with us for 33 years. He loved people, and he taught many students about stallion handling over the course of his lifetime. He made a positive impact on the Tennessee Walking Horse breed, and in 2020, Hey Dare ranked 24th of TWHBEA's Leading Broodmare Sires.

He has sired countless champions in the barn and the arena. His sweet manners and stellar genetics live on in our broodmares, and in his grandson, Royal Raider. Hey Dare, 1988–2021, by Delights Dare Devil out of Sister Carbon.



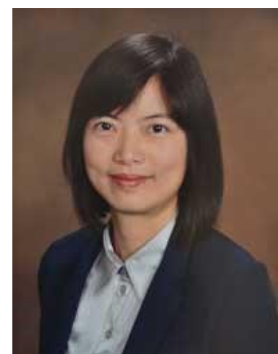
Horse Science

In Appalachia, a Plan to Save Wild Ginseng

An article in the current edition of *Undark** digital magazine about **Dr. Iris Gao's** research on American ginseng.

Link to the article: [In Appalachia, a Plan to Save Wild Ginseng \(undark.org\)](https://undark.org)

Undark is a non-profit, editorially independent digital magazine exploring the intersection of science and society. It is published with generous funding from the John S. and James L. Knight Foundation, through its Knight Science Journalism Fellowship Program in Cambridge, Massachusetts.



MTSU, Motlow, Columbia State use \$300K USDA grant to steer students to agriculture, fermentation science, by Randy Weiler

Attracting future students to agriculture and MTSU's Fermentation Science program — that's the objective of a new U.S. Department of Agriculture grant collaboration between the university and Columbia State and Motlow State community colleges. It's a three-year, \$300,000 grant proposed by MTSU's Tony Johnston, who is partnering with Columbia State's Karen Kendall-Fite and Motlow's Nathan Fisher, along with faculty from all three schools. The grant is designed to increase awareness of agriculture and introduce fermentation concepts into lower division undergraduate math and science classes at Columbia State and Motlow, and drive fermentation science as a career option.



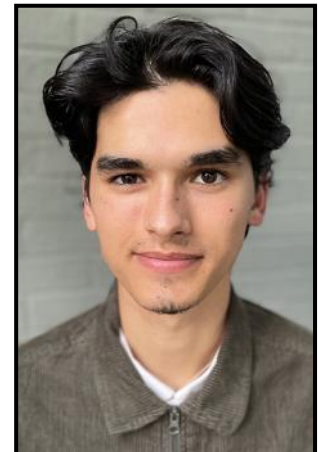
"Students in general aren't aware of what fermentation science is, much less that it's actually agricultural," said Johnston, professor and director of the MTSU Fermentation Science program. "The grant seeks to get more students interested in agriculture as a career." "Ultimately, the objective is to increase undergraduate enrollment in MTSU's Fermentation Science degree program," Johnston added. Columbia State President Janet Smith said the grant "will give our students exciting opportunities in fermentation science that would not otherwise be available to them without this funding. The grant will also allow us to continue to build upon our excellent partnership with MTSU." The value of the grant extends beyond the expansion of enrollment in the MTSU's program, Johnston said. "Agriculture is an applied STEM (science, technology, engineering and math) field, but it is not traditionally viewed this way," he said. "The grant provides an opportunity to connect the dots between STEM courses and agriculture and raise awareness of and increase the potential for a student to become interested in the applied STEM career that is fermentation science." Motlow and Columbia State STEM faculty will be trained in problem-based learning methods to work with their students, and the impact of their students' awareness of fermentation science as a STEM concentration and career will be tracked. Johnston said the grant recognizes the overwhelming support the USDA offers to the 106 agriculture programs at land-grant colleges and universities and provides grant opportunities solely for the 56 USDA-certified agriculture programs at nonland-grant schools in the U.S. "It is estimated that 45 percent of all agricultural undergraduate degrees are awarded by nonland-grant institutions that offer agriculture degrees, which underlines the importance of these institutions to our country," he said. Johnston said part of the grant will go toward classroom equipment — smartphones and scientific equipment — for Motlow and Columbia State students to learn about chemistry, biology and math through applications of fermentation in their freshmen- and sophomore-level courses.

MTSU fermentation science major receives inaugural scholarship from brewer Terrapin



Fermentation Science

MURFREESBORO, Tenn. — Middle Tennessee State University rising junior fermentation science major Calvin Hood of Greeneville, Tennessee, is the inaugural recipient of the Tenth and Blake Brewing Education Scholarship, awarded by Athens, Georgia-based Terrapin Beer Co. The announcement was made Wednesday, May 12, by Terrapin President Dustin Watts; Paul Verdu, vice president and head of Tenth & Blake, the craft and import division of Molson Coors Beverage Co.; and Tony Johnston, director of the MTSU fermentation science program. The Tenth and Blake Brewing Education Scholarship Fund supports underrepresented undergraduate students seeking an MTSU fermentation science degree. The \$7,000 award for Hood also provides an opportunity to intern with Terrapin during the summer between the student’s junior and senior year of college. Watts, Verdu, Johnston and Terrapin human resources director Jeremiah Shepherd surprised Hood, informing him April 30 in a virtual video session he was chosen the first recipient. Hood, 20, grew up on a 26-acre vineyard in Greene and Cocke counties in East Tennessee. His family eventually started their own business, Goodwater Vinyards and Winery. “Oh, my gosh. This scholarship means everything,” said Hood, a 2019 Greeneville High School graduate who has worked at the family vineyard since he was 9 and works part-time at Bean’s Creek Winery in Manchester, Tennessee. “This will make it so much easier on my family. It moved me to tears. It was an amazing day.” Johnston said the scholarship “is going to provide a fantastic opportunity for MTSU students who might not have grown up thinking about fermentation as a career. ... They (Terrapin) are looking to Calvin for leadership and have him help recruit minority students.”



MTSU fermentation science major Calvin Hood of Greeneville, Tenn., is the first recipient of the Tenth and Blake Brewing Education Scholarship, awarded by Terrapin Beer Co. (photo by Maggie Sanders)

Watts calls it “an exciting moment for us at Terrapin and the brewing industry as a whole. We couldn’t be more thrilled to have Calvin as our first scholarship recipient and think he will be a great alum and ambassador for our brewing education scholarship.”

Molson Coors Beverage Co., which acquired Terrapin in 2016, established a \$25,000 endowment with MTSU and similar partnerships with Colorado State and Oregon State University. Terrapin, Molson Coors and MTSU made the original scholarship announcement in September 2020.

To learn more about the scholarship or to donate, visit www.terrapinbeer.com/scholarship.

About MTSU Fermentation Science

MTSU’s fermentation science undergraduate degree is the first of its kind in Tennessee and one of only two in the Southeast. Fermentation science courses are predominantly hands-on, and all are focused on preparing students for careers in industry or further education through graduate programs. Faculty members have industry experience and work closely with students in ongoing research. Because Tennessee is a member of the Southern Regional Academic Common Market, prospective students from other member states not offering a fermentation science degree at one of their state universities qualify for in-state tuition. MTSU’s graduate program with a fermentation science emphasis falls within the Master of Science in Professional Science degree. This MBA-based program prepares individuals, with and without backgrounds

Animal Science Academic Quadrathlon Team



L to R: Jacob Tipton, Lindsey Parsley, Jessika Benson, and Ashton Bazzell.

In January, four animal science students competed virtually as a team at the 2021 Southern Section Animal Science Academic Quadrathlon competition. The MTSU team consisted of Ashton Bazzell, Jessika Benson, Lindsey Parsley, and Jacob Tipton. The Quadrathlon is a four-part competition in the animal sciences where undergraduate students from universities across the South work together as teams in a lab practical, written exam, oral presentation, and quiz bowl. The team placed 4th in the presentation category. The team was coached by Dr. Jessica Carter.

Parsley wins National Block & Bridle Award

Congratulations on your national award Lindsey Parsley!!! During the 100th National Block & Bridle Convention she was awarded 2nd place "Outstanding Junior" AND their advisor, Dr. Jessica Carter was named Vice President of National Block & Bridle!



Dairy Challenge Team

The Dairy Challenge team participated in the Southern Regional Contest in October on Zoom. Team members included Sarah Kozuszek, Mia Kuhnle, and Erin Coleman. The team placed 2nd in their division and was coached by Dr. Maegan Hollis.



Pictured from top L to R: Sarah Kozuszek, Erin Coleman, and Mia Kuhnle.



Animal Science

Virtual Raider Roundup

For the third year in a row, MTSU Collegiate FFA hosted Raider Roundup - only this year it was held virtually using Zoom and Kahoot. Participation nearly doubled, with 523 middle and high school agriculture students from East, Middle, and West Tennessee attending. This event is designed to expose secondary students to postsecondary opportunities in agriculture and represents a collaborative effort that involves every faculty member and student organization in the MTSU School of Agriculture.

Students participate in State Young Farmers & Ranchers Collegiate Discussion Meet

Three MTSU students made it to the elite eight at the State Collegiate Discussion meet, hosted in July by Tennessee Farm Bureau Federation and the Young Farmers and Ranchers organization. MTSU students included Jake Duke, Neil Slone, and Caroline Haynes. Competitors are evaluated on an exchange of ideas and information on a pre-determined topic. Participants build basic discussion skills, develop a keen understanding of important agricultural issues and explore how groups can pool knowledge to reach consensus and solve problems.



Pictured below (L to R) Caroline Haynes, Tennessee Farm Bureau Federation president Jeff Aiken, Neil Slone, and Jake Duke.

School of Agriculture student receives presentation award at international poultry science meeting

Emily Stafford, senior Animal Science major, presented her poultry nutrition research at the 2021 International Poultry Scientific Forum and received the Don R. Sloan Undergraduate Research Award for first place poster presentation. Emily's abstract was entitled "Influence of varying kudzu leaf meal particle sizes added to a broiler diet."



School of Ag students participate in the US Poultry College Student Career Program

Each year the US Poultry and Egg Association sponsors the College Student Career Program at the International Production and Processing Expo to engage college students from around the United States with internship and career opportunities in the poultry industry. The School has participated in this program for a number of years, with many students receiving internship and full-time position offers. Although the 2021 program was virtual, four students in the School participated, with two accepting internship positions with Aviagen (Elkmont, AL complex).



School of Agriculture receives US Poultry Foundation grant to support recruitment

The Poultry Science program in the School received a \$10,000 grant from the US Poultry Foundation and Pilgrim's in support of recruitment efforts. These funds are instrumental in growing the Poultry Science program in the School and we are deeply appreciative of the continued support from the poultry industry.



MTSU Poultry Science Club welcomes poultry industry speakers

COVID-19 didn't stop the MTSU Poultry Science Club! One of the key goals for the club is to engage students with the poultry industry. Over the last year the club welcomed speakers from Aviagen, Cobb-Vantress, Cal-Maine Foods, and Auburn University Department of Poultry Science.

Collegiate FFA

In spite of the pandemic, MTSU's Agriculture Education program and Collegiate FFA Chapter continued to provide opportunities for others to learn about agriculture through service projects and outreach activities. FFA partnered with Coffee County High School to design, construct and install an outdoor classroom. FFA also coordinated Raider Roundup Agriculture College and Career Exploration Event virtually that reached more than 300 high school students. They conducted the first ever MTSU Agriculture Education preview day for more than 20 prospective agriculture education students and also partnered with Rutherford County Farm Bureau's Young Famers & Ranchers to donate books with accurate agriculture information to each Rutherford County high school agriculture program. The Agriculture Education program launched a podcast about controversial agriculture topics called [Squabbles of the Soil](#), while FFA created a grant program for high school agriculture education students to create their own podcasts. Also, the Agriculture Education Program constructed raised vegetable garden beds and hosted virtual workshops about vegetable gardening. The raised beds, currently growing potatoes and peanuts, will be used by C-FFA members to harvest food that will be donated to the MTSU community and allow future agriculture education students to gain hands on experience with school-based vegetable gardening. FFA also created a grant program for high school FFA chapters and individual students interested in starting a vegetable gardening program. The agriculture education program continues to thrive, as 10 students will graduate with agricultural education teacher licensure this academic year.



Collegiate FFA members Bridget Robertson and Neil Slone work on the outdoor classroom that was installed at Coffee County High School.

Inaugural MTSU Winter Session grows into a “huge” success

Shelby West is an MTSU transfer student from West Tennessee. She made a major decision after the fall semester to switch majors, from science to agriculture, and works in retail. To help ease her spring academic load, she took a Winter Session course. Madison Berry plans to graduate in December. She wants to take fewer hours in the fall to focus on graduate school, potential jobs and a possible relocation. A Winter Session class will help ease the load. MTSU offered its inaugural Winter Session, which ran from Dec. 21 to Jan. 21, for students like West, Berry and hundreds of others. Early indications reveal it is a hit with both them and faculty. A group effort between Academic Affairs and Student Affairs led to the launch of Winter Session — another way for students to receive credit toward graduation by taking advantage of the compressed course term. “Winter Session has been a huge success. Hundreds of students are being served, and the session has proceeded without a hitch,” said Rick Sluder, vice provost for Student Success and dean of University College. “The addition of this session enables students to stay on track and finish faster.” Sluder said he wants “to express appreciation to faculty and (department) chairs” in addition to the others “who made this a highly successful initiative. The inaugural Winter Session would not have been possible without their efforts.” Academic Affairs’ Dr. Peter Cunningham, who retired in 2020, Winter Session Coordinator Jana Hinz, 2019-20 Faculty Senate President Dr. Justin Gardner and MT One Stop Director Tyler Henson were among many who made it happen.



Main Street Saturday Market crowd craves MTSU Creamery milk — and addition of ice cream



MURFREESBORO, Tenn. — MTSU College of Graduate Studies senior graduation analyst and former fermentation science student Lyndsey Bennett and her young family arrived before 8 a.m. at the Main Street Saturday Market because “you’ve got to get here be-

fore all the chocolate milk is all gone.” With 2-year-old son Eddie enjoying the chocolate milk his dad Greg Bennett, an MTSU alumnus, was letting him drink, the Bennett's and hundreds of others celebrated the return of the farmer’s market and second-year appearance of the MTSU Creamery, which joined more than 50 other vendors selling products May 22 at the Historic Rutherford County Courthouse. The Main Street Saturday Market resumed its annual summer and fall season that will continue through Oct. 30.

For the first time in the two years the MTSU Creamery has been a part of the market, ice cream in a variety of flavors was available in 20-ounce containers, said Matthew Wade, MTSU Farm Laboratories director. The ice cream is a partnership with Two Fat Men Catering of Lebanon, Tennessee. “It was a great day for us,” Wade said. “We did a tremendous amount of business today. The (Main Street) folks at the farmer’s market are so good to work with. We got to re-associate ourselves with a lot of alumni and local community people. What great supporters they are. “We appreciate them coming out and backing our MTSU milk program, and buying the chocolate milk and even the ice cream we had today — that’s a first for us. We sold over three-quarters of the ice cream we had and people loved it”. Chocolate, strawberry, sugar-free strawberry, butter pecan, vanilla, salted caramel and black walnut goat milk fudge are some of the ice-cream flavors. For Week 1, MTSU student workers brought 400 pints of chocolate milk, 219 half-gallons of chocolate milk, 60 pints of white milk and 40 gallons of whole while milk, Wade said. For sale, too, are MTSU Dairy Science Club T-shirts. Free coloring books are available for children.

Farm Laboratory Photos



Senior Animal Science student Sarah Kozuszek enjoyed working at the dairy while attending MTSU. After graduation, she enrolled in graduate school at the University of Illinois.



Our faculty and students are actively recruiting at various agriculture events throughout the year. If you know of a student who's interested in MTSU Ag please contact the department at 615-898-2523 to schedule a campus visit and tour of our farm laboratories and/or horse science center. We offer scholarships to incoming freshman (application found on our website and due by April 1). We would love to show you



Make a Gift

School of Agriculture – [mtsu.edu/supportag](https://www.mtsu.edu/supportag)
If you would like to contribute please check out this link. You can donate to one of several different funds or to the general fund for the School of Agriculture. Thank you for your support!

Contact MTSU School of Agriculture:

Dr. Jessica Carter (jessica.carter@mtsu.edu, 615-898-2169). **Do you know a high school student who may be interested in attending MTSU? If so please feel free to contact me to set up a campus visit or farm tour. Ag Alumni are some of our best recruiters!!**

Be sure to check out our Webpage:

<http://www.mtsu.edu/agriculture/>

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Agriculture Faculty

Dr. Jessica Carter, Director & Professor of Animal Science

Dr. Song Cui, Associate Professor of Plant & Soil Science

Dr. Kevin Downs, Professor of Poultry Science

Dr. Iris Gao, Professor of Plant & Soil Science

Dr. Justin Gardner, Associate Professor of Agribusiness

Dr. John Haffner, Veterinarian, Horse Science

Dr. Samuel Haruna, Assistant Professor of Soil Science

Ms. Ariel Herrin, Director of Equestrian Program

Dr. Rhonda Hoffman, Professor of Horse Science

Dr. Tony Johnston, Professor of Fermentation Science

Dr. Kishor Luitel, Assistant Professor of Agribusiness

Dr. Seockmo Ku, Assist. Prof. of Fermentation Science

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