

MTSU School of Agriculture

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Stories and Pictures by MTSU Faculty, Staff and Students

Highlights for 2017-18 Academic Year

By Dr. Jessica Carter, Director

Highlights:

- The School of Agribusiness & Agriscience officially has a new name (effective July 1, 2018). The school will be renamed the **School of Agriculture**.
- Enrollment for the Fall 2017 semester was 507 undergraduates, 9 graduate students in horse science and 10 students enrolled in the M.Ed. in Agricultural Education Leadership. Undergraduate enrollment has increased 10% since 2015 and is expected to remain close to 500 students for the 2018-19 academic year.
- We have added 2 new faculty members: **Dr. Chaney Mosley** (Agriculture Education) and **Dr. Maegan Weatherly** (Animal Science—Dairy Science emphasis).
- Classroom & building upgrades—**SAG 125** was renovated last year and had a fresh look for the start of the the academic year. **VoAg 100** will be renovated during the fall 2018 semester. SAG was closed during the summer 2018 for electrical renovations and network upgrades. We have moved back into our building and are geared up for the fall semester.

• **Dr. Iris Gao** hosted a Ginseng Growers Meeting in May and over 60 farmers attended.

• The MTSU flag was at half-staff on January 3rd in memory of James (Jim) Glendon Staley who passed away on December 30, 2017. Dr. Staley was employed with MTSU from August 1, 1977, until his retirement on July 31, 1998. Jim became MTSU's horticulturist and joined the faculty as Associate Professor in the Agriculture Department in 1977.

- MTSU Horse Science faculty & staff hosted a retirement dinner honoring **Mrs. Anne Brezicki**, who served as the director of the Equestrian Team for 35 years. The covered riding arena was officially named in her honor and announced during the event.



- Please follow us on Facebook (**MTSU School of Agriculture**) and Twitter **@MTSUAg** and check our website for current events!

• Upcoming events (check our department website for current events and updates throughout the year):

- ♦ Sept. 21—Raider Roundup Career Development and Exploration event for high school FFA students
- ♦ Sept. 29—Junior Market Broiler Show
- ♦ Oct. 5-6—Heart of TN Junior Meat Goat Classic
- ♦ Oct. 20—Homecoming, Ag Alumni tailgate on SAG front lawn
- ♦ Dec. 1— MTSU Christmas Village



Dr. Phillip's PLSO 3600 Horticulture in our Lives course hosted our annual spring plant sale in April. The Plant & Soil Science Club also sold Poinsettias in December. Thanks to all of our loyal customers!

Inside This Edition

Faculty news	2
Creamery/FERM	3
Eq Team	4
Horse Science	5
Dairy Challenge	6
PLSO news	7
Scholarships	8
Block & Bridle	9
Spring Fling	10
Ginseng Institute	11
Equestrian Team	12
	13
Faculty/Staff	14

MTSU Creamery had a successful year!

After launching our new bottler in June, 2017 we have had a very busy year in the creamery. Demand for our milk continues to grow. MTSU Milk is now available at the following locations.



Where can you purchase MTSU Milk?

On Campus:

- PODs in various locations across campus
- MTSU Bookstore, Student Union
- MTSU Pharmacy, Rec Center
- Dwight's Mini Mart, KUC
- All Cafeterias



Off Campus:

- Hattie Jane's Creamery
- Lascassas Feed Store
- City Cafe
- Rutherford Farmers Coop
- Woodbury Farmers Coop Convenience Store
- Two Fat Men Catering, Lebanon
- Project Donuts
- Cali Coffee and Creamery
- Mills Family Pharmacy

Fermentation Science

The first year for the fermentation science degree program has been very successful. We now have 30 student enrolled in the program which is led by Dr. Tony Johnston and Dr. Seockmo Ku. We are partnering with Steel Barrel Brewing Company, which is providing laboratory space at their new facility just



outside of Murfreesboro. Our students will be able to gain real-world experiences onsite at this Brewery.

2018 Craft Brewing Conference

Attendees of the Brewers Association's national 2018 Craft Brewing Conference in Nashville got a sneak peek on May 4, of MTSU's Fermentation Sciences laboratory under construction at the Hop Springs agritourism destination being built by Steel Barrel Brewery. Provost Mark Byrnes joined College of Basic and Applied Sciences Dean Bud Fischer and Tony Johnston, director of MTSU's fermentation science program, in welcoming attendees to the open house at the 80-acre Hop Springs construction site, located at 6790 John Bragg Highway. Conference-goers were offered bus rides from Nashville's Music City Center to the Hop Springs site, where they sampled Steel Barrel beers and reviewed plans for the facility.

Johnston will oversee a hands-on laboratory and research site being built as part of the Hop Springs facility. Steel Barrel's brewing headquarters, anticipated to be complete by fall 2018, will also feature a 2,000-seat amphitheater, a 10-acre hop field, wet and dry dog parks and scenic hiking and biking trails.

Also attending the event was state Sen. Bill Ketron, R-Murfreesboro, who sponsored legislation that enabled MTSU to create the fermentation science program, which opened up to students in the fall of 2017. "The collaboration between Steel Barrel Brewery and MTSU is critical for our program," Johnston

Faculty News & Updates

The School of Agriculture is pleased to introduce two new faculty for the 2018-19 academic year.

Dr. Chaney Mosley is serving as assistant professor of Agricultural Education. He started his career as a high school agriculture teacher just after finishing his undergraduate degree in Agriculture Business from MTSU in 2000. Since then, he has worked as a high school administrator, career and technical education director, Tennessee FFA Executive Secretary, and College and Career Readiness Specialist with American Institutes for Research. Chaney received a PhD in Agricultural and Extension Education from Virginia Tech. He has coached numerous students through state and national FFA competitions and will be receiving the Honorary American FFA Degree in October. Dr. Mosley will be leading the undergraduate agricultural education program and serving as advisor to the Collegiate FFA Chapter. Chaney spends his free time in the outdoors hiking, camping, and participating in adventure sports, and was recognized as a Ford Ironman Everyday Hero for his commitment to education and work in the community. He is also a member of the Tennessee Army National Guard where he serves as a Logistics Officer in the Regimental Support Squadron of the 278th Armored Cavalry Regiment.



Dr. Maegan Weatherly is a new assistant professor of Animal Science. She received her B.S. and M.S. degrees from the University of Kentucky in animal science and dairy nutrition and most recently received her Ph.D. in dairy nutrition from the University of Illinois. There, her research was focused on food safety through fungal disease and mycotoxin mitigation on dairy farms. Her research interests center around

both basic and applied principles of dairy nutrition, cow comfort and well-being, milk quality, and precision dairy technologies. She is hoping to build a research program that will allow students to develop skills in all areas of dairy science and produc-



tion while simultaneously engaging with the community at large and improving the dairy industry in Tennessee and the Southeastern United States. Dr. Weatherly is a member of the American Dairy Science Association, the American Registry of Professional Animal Scientists, and the North American Colleges and Teachers of Agriculture society. She will be teaching introductory animal science courses as well as courses in dairy production and livestock management. Dr. Weatherly will also be co-advising the Dairy Science Club and the Dairy Challenge Team and is excited to share her passion for dairy with the MTSU students! When she is not teaching or conducting research, she enjoys running, taking hikes with her dogs, and training for triathlons.



Dr. Alanna L. Vaught was a keynote speaker at the 2018 Tennessee Young Leaders Conference.

2018-19 ABAS Scholarship Award Recipients

Adams Family Sammy Mould
 Adams Family Joseph Gulizia
 Agriculture Endowment..... Jessica Cripps
 Agriculture Endowment..... Nolan Jolley
 Agriculture Endowment..... Sarah Kozuszek
 Boxwood Farms..... Jessica Hickerson
 Campbell Family Endowment..... Carissa Porter
 Carolyn Gill Endowment..... Samantha Newman
 Catherine Ellington..... Angelica Nichols
 Dr. Harley W. Foutch Endowment..... Abagayle Morton
 Dr. Robert Garrigus Endowment..... Tiffany Lynn
 Dr. Robert Garrigus Endowment..... Gordon Moncier
 Dr. Jerry Williams..... Lauren Rieuf
 Fowler and Ruth Nickle..... Maxi Edwards
 Hayden Memorial..... Allison Parker
 Heritage Farm..... Jessica Schriver
 Hugh Burrum..... Brandon Roy
 Hugh Burrum..... Kylan Lane
 Paul Cantrell Agribusiness..... Rachel Morris
 Robert Alexander..... Shelby Oldham
 Robert Jarrell Memorial..... Michelle Salazar
 TN Council of Coops Madison Armstrong
 TN Farmers Coop..... Rachel Elrod
 TN Farmers Coop..... Jessica Hickson
 TN Farmers Coop..... Lindsey Parsley
 TN Farmers Coop..... Kayley Stallings
 Theodore Bigger..... Benjamin Fox
 Thomas F. Rowlett Jr. Memorial..... Angelica Nichols
 Towry Endowment..... Rex Dunn
 Tennessee Pork Producers..... Allison Parker
 Tennessee Pork Producers..... Lindsey Parsley

Incoming Freshman Scholarship Awards:

TN Farmers Coop..... Jacob Tipton
 Adams Family..... Jessika Benson
 Dr. Robert Garrigus Endowment..... Lytton Haley
 Joe Jack & Jerry Dement Endowment... Bridget Robertson
 TN Rehabilitation Corporation..... Jake Duke
 TN Rehabilitation Corporation..... Calli Gregory
 TN Rehabilitation Corporation..... Jordan Dillenbeck
 TN Rehabilitation Corporation..... Taylor Meek

Outstanding Senior Awards

Robert A. Alexander Outstanding Agribusiness Senior Award
 Justin Young

Outstanding Animal Science Senior Award
 Christina Davis

Sam Paschal Award for Outstanding Horse Science Senior
 Abigail Rigsby

Theodore C. Bigger Outstanding Plant and Soil Science Senior Award
 Zach Stevens

B.B. Gracy, Jr. Outstanding Agriculture Senior Award
 Andrew Pryor



Scholarships awarded at the Horse Science Banquet:

J.W. Cross Scholarship..... Jessica Schriver
 Kitty Adams Scholarship..... Patricia Wingate
 Mark Moskovitz..... Madison Armstrong
 Tennessee Horse Council..... Lauren Rieuf
 Joan Hunt Scholarship..... Mary C. Wade

Senior Honor Students (GPA 3.8 or higher):

Jessica Cripps	Nolan Jolley
Caitlin Faulk	Andrew Pryor
Jordin Hockaday	Lauren Rieuf
Joshua Howland	Justin Young
Ella Hudson	

Dairy Challenge Team

The Dairy Challenge team had a very successful year. The team participated in the Southern Regional Contest held in November in Live Oak, Florida and the National Dairy Challenge held in Visalia, California. This was the first year for MTSU to be represented at the national contest. Special thanks to local dairy producer, Stephanie Nash of Nash Dairy for serving as a coach and allowing our students to practice at their dairy multiple times in preparation for the national contest. Other coaches included Dr. Jessica Carter and Jared Franklin, assistant dairy manager.

At the national contest, four students represented MTSU: Christina Davis, Kayana Fonseca, Andrew Pryor, and Jessi Schriver. Wade Dunaway participated in the Academy which prepares students to compete in the national contest the following year. Activities included a pre-contest tour of the famous Maddox Dairy in Riverdale, Cali-



fornia, educational seminars, a career fair, and corporate technology presentations as well as the contest and awards banquet. During the contest, the 4-member team evaluated a 4,400 cow free-stall type dairy. Students spent a few hours on site analyzing the dairy and then several hours back at the hotel analyzing records and determining oppor-



Pictured from left to right: Stephanie Nash (coach), Andrew Pryor, Christina Davis, Wade Dunaway, Kayana Fonseca, Jessi Schriver, Dr. Jessica Carter (coach), and Jared Franklin (coach).

tunities for improvement. We are very proud of their efforts and a top 5 finish in their division. We are preparing a 2018-19 team to compete at the national contest in Tifton, Georgia in March 2019.

Special thanks to our sponsors:

- Rutherford County Farm Bureau
- Cannon County Farm Bureau
- Nash Dairy
- MTSU Block & Bridle Club
- MTSU Student Activity Fees



Block & Bridle Club



National Block & Bridle Preview Show, February 17, 2018 Convention

Fourteen MTSU Block & Bridle students and their advisor, Dr. Jessica Carter attended the 98th National Block & Bridle Convention that as held in Orlando, Florida in March.

Students participated in agriculture industry tours, leadership workshops, and a banquet.

B&B members hosted a successful Preview Show in February with over 120 head exhibited and 66 juniors in attendance. This show was the first TN Cattlemen's Point Show of the year and so they served as a co-sponsor. Thanks to all members for making this annual event successful.



L to R: Lindsey Parsley, Michelle Salazar, Jennifer Dowd, Emma Jo Eversole, Rebekah Brown, Allison Parker, Ella Hudson, Leah Steele, John Glasner, Sarah Kozuszek, Madison Armstrong, Rylie Topping, Jessi Schriver, Christina Davis, and Dr. Jessica Carter.



Picture from L to R: (front row) Madison Armstrong, Rylie Topping and Sarah Kozuszek (back row) Gordon Moncier, Jennifer Dowd, Christin Davis, Leah Steele, and Allison Parker.

Hurricane Relief

MTSU Block and Bridle is proud to announce we raised \$1,175 dollars to benefit the agriculture relief fund for the hurricane victims in Texas!



2017 Little International
Left photo: Sheep Showmanship Champion. Gordon Moncier and judge Matthew Farris
Right photo: Swine showmanship winners, Lindsey Parsley and Allison Parker.

First-year MTSU coach guides equestrian team to third-place finish at nationals

Story by Randy Weiler, MTSU News

Middle Tennessee State University's equestrian team has sent individual riders to the Intercollegiate Horse Shows Association National Championship for many years. However, it had been five years since the well-respected program had qualified as a team. Now, a third-place finish at nationals is how coach **Ariel Herrin** capped off her first year as coach following the retirement of coaching legend **Anne Brzezicki**.

MTSU and Oregon State tied for third in the annual IHSA event, held May 3-6 at the Pennsylvania Farm Show Complex in Harrisburg. More than 400 teams and nearly 9,000 riders competed in the event that ends the fall and spring competition seasons for teams nationwide. "It was awesome," Herrin said of the accomplishment. "Our riders rode great — everything we had practiced for. It was exciting." National power University of Findlay of Ohio claimed its sixth IHSA American Quarter Horse Association Western (horsemanship and reining) team national title. Ohio State University placed second and was named reserve champion.

Blue Raider Western team members featured **Jenna Seal, Steven Todd, Mary Catherine Wade, Tricia Wingate, Lucas Brock, and Sarah Kozuszek**. Wade was second in team open reining. Wingate took third in team novice horsemanship. Brock placed third in team intermediate horsemanship. Todd finished fourth in team advanced horsemanship. Seal landed sixth in team open horsemanship. Kozuszek finished ninth in team beginner. The Western category allows riders of all levels and abilities — from be-



Pictured from L to R: Ariel Herrin (coach), Jenna Gaynor, Lucas Brock, Jenna Seal, Mary Catherine Wade, Morgan Bowie, the infamous Harley (Hotroddin In Chrome), Lindsey Ross, Sarah Kozuszek, Patricia Wingate, Steven Todd, Julia Rhyne, and Andrea Rego (assistant coach).

ginner with no show experience to ones having success at a high level — to compete as a team. **Kelsey Sloan**, finished in the top 20 for the United States Equestrian Federation/Cacchione Cup, which is awarded to the national individual Hunter Seat high point rider. It is named for **Bob Cacchione**, who helped establish the organization and competition in 1967 as an 18-year-old Fairleigh Dickinson University sophomore.

Steven Todd placed seventh in the Novice Western Horsemanship category. **Julia Rhyne** placed 13th in novice fences. Alumna **Emily Kopko** finished sixth in the Alumni Western Horsemanship division. MTSU horse **Hotroddin' in Chrome**, aka **Harley**, became the judge's pick for horse of the show, earning the SmartPak Most Popular Western Horse award. Harley was one of five university horses the team brought for the competition. At least 10 riders from other universities rode Harley in the competition. The 2019

Foundation donates another \$10K to MTSU's 'CERV' program for veterans. by Randy Weiler, MTSU News

On April 10th, 2018 the Better Life Foundation (3 Doors Down) made another generous \$10,000 donation to the Center of Equine Recovery for Veterans program at MTSU Horse Science. Andrea Rego says "We are so grateful for another donation. We

hope to build a fantastic permanent outdoor trail obstacle course, along with a meeting area for goal sessions. We believe this will enhance the Veteran's time at Horse Science and allow for more challenging obstacles for them to overcome." People in attendance included Jared Bryson, Brian McSpadden, Brad Arnold, Jen Arnold, Horse Science Faculty (Andrea Rego, Holly Spooner, Rhonda Hoffman, Ariel Herrin), Equine Assisted Activities and Therapies Class students, Graduate students, and Veterans in the program. Quote from a veteran participant at donation time: "Before this program I was in my own little bubble that I couldn't get out of. This has rocked my world and I can't thank everyone enough." Standout Horses: Allie AKA "Heydare Spunky One" was born and raised at MTSU. She is a 14 year old Tennessee Walking Horse. Her docile temperament and smooth gait make her a valuable asset to the CERV program. Floyd "It's Tee For Two" was born and raised at MTSU. She is a 9 year old Tennessee Walking Horse. Her unique personality and playfulness make her a wonderful part of the CERV program.



MTSU Horse Science Center arena named for retired coach Brzezicki

Murfreesboro resident and longtime MTSU equestrian team coach **Anne Brzezicki** knew all about a retirement celebration dinner planned for her in the James Union Building. She was totally unaware, however, that friends planned a surprise that remained a secret for weeks and months: The large Horse Science Center indoor facility would bear her name — the "**Anne Brzezicki Arena**." Boulder, Colorado, residents **Lanas** and **Julie Smith**, MTSU alumni and longtime friends of both the program and Brzezicki, retained the naming rights for the Anne Brzezicki Arena through their generous gift to the MTSU Foundation to enclose the area.

When Brzezicki retired earlier this year after a successful 35-year career, there was only one individual's name the Smiths wanted on the building. "After all the years of putting my heart and soul into the program, a permanent piece of me is now there — and that means a lot," Brzezicki said. **Jared Bryson**, development director for the **College of Basic and Applied Sciences**,

said there's an opportunity in Brzezicki's retirement for the public "to support the work she holds dear" by giving to the Anne Brzezicki Equestrian Endowment. Donors can complete giving online at www.mtsu.edu/supportag, then direct their gifts to the Brzezicki endowment in the comments section. "The funds will support broader student experiences through the purchase of critical new equipment and enable travel to competitions across the country," Bryson added. "In order to stay on the forefront of equestrian education and produce graduates that are highly competitive, we need the ability to secure student learning experiences and enhance existing facilities."



Horse Judging Team

The Horse Judging team competed in 2 contests during the fall semester. They had a fantastic contest at the All-American Quarter Horse Congress. Kailey Vande Kamp was high individual in performance and overall, Jenna Seal was 7th overall, and Chelsy Leigh was 11th in their first collegiate contest!.

Their second contest was at the AQHA World Collegiate Horse Judging Contest. Kailey Vande Kamp was 8th in halter and 5th in reasons and Chelsy Leigh was 5th in performance, 4th in reasons, and 7th overall! Congratulations to the team members and their coach, Dr. Holly Spooner.



Stock Horse Team

In April, 2018, eight stock horse team students, six MTSU-owned horses, and Coach Andrea Rego traveled over 1800 miles and 30 hours round-trip, to showcase the only collegiate stock horse team that exists on the East side of Mississippi. The American Stock Horse Association fosters an environment for students to compete against colleges from

across the country, while showcasing their horse's ability to successfully work cattle, ride the trail, and be an all-around ranch horse. 2018 National team members Lucas Brock, Jenna Seal, Jessica Starling, Caroline Blackstone, Mary Wade, Jennifer Dowd, and Lindsay Gilliland represented MTSU in Sweetwater, Texas and competed at the American Stock Horse Association National Championships, on April 20-22. They competed individually and against other Division I and II colleges across the country.

Highlights of the national event include:

Junior Lucas Brock was a national champion, and reserve national champion in the limited non-pro reining and cowhorse, respectively – earning champion high-point rider in the limited non-pro division (Pictured below). Coach Andrea Rego was reserve champion in open (professional) trail class. Sophomore Patricia Wingate clenched the title for collegiate novice national champion in the trail class. Junior Jennifer Dowd ranked fifth overall in green horse division. Junior Jenna Seal was champion in green horse trail and clenched third overall in the green horse division. Mary Wade and Caroline Blackstone were third and seventh overall in the novice division, respectively. Freshman Lindsay Gilleland earned Reserve National Champion status in the Youth division. The team placed fourth overall in a very tough Division II collegiate competition.



Pictured above are national team members (from left to right): Lindsay Gilleland, Jenna Seal, Mary Wade, Lucas Brock (also pictured below), Patricia Wingate, Caroline Blackstone and Coach Andrea Rego.



Ag Education Spring Fling

Article provided by Randy Weiler

MURFREESBORO, Tenn. — Standing outside a back entrance, you could hear the buzz of little voices coming from inside the MTSU Tennessee Livestock Center. It was about 300 children — the first of three waves of youngsters to come Tuesday (April 17) for the fourth annual Ag Education Spring Fling — visiting various agriculture-related stations during their two-hour visit to learn about life on a farm.

They saw horses, pigs, a cow, ducks and other animals. They learned about honey bees, soil, where food comes from and more. They could walk or run through a straw maze, play cornhole, make a Holstein dairy cow puppet craft and learn about how fruits and vegetables are grown. Some even brought a sack lunch. More than 900 elementary-age school children — from Christiana, Campus School, Thurman Francis, Blackman and Smyrna — plus teachers, parents and more than 80 combined MTSU agritourism class and agriculture students kept things hopping in the [livestock center](#).

“Our students will get as much out of this as these children will,” said Alanna Vaught, a [School of Agribusiness and Agriscience](#) instructor who oversaw her fourth agritourism class-led Ag Ed Spring Fling.



Blackman Elementary students learn from Heather Brunk, MTSU alumna and district technician for the Rutherford County Soil Conservation District, about what can be found in our soil. (MTSU photo by Kimi Conro)

“It’s very important to educate children about agriculture. Without agriculture, there would be no food and no farms.”

Junior agribusiness major Rachel Elrod, wearing a pink beekeeper suit, said one child told her, “I didn’t know girls could be beekeepers.” Elrod’s most-asked questions from children: “Can they sting you through your suit and does it hurt when they sting?”



MTSU student Rachel Elrod, a beekeeper at MTSU and junior agribusiness major, teaches Blackman Elementary students about bees. (MTSU photo by Kimi Conro)

MTSU alumna Heather Brunk, district technician with the Rutherford County Soil Conservation District, escorted the youngsters through a plastic tunnel. “We tell them we’re here to conserve our natural resources, soil and water,” she said.

Rebekah Brown, a junior agribusiness major who has worked for the Rutherford Farmers Co-Op for two years, oversaw a station showing “what farmers can get at the co-op.” Other manned nearby stations informed students about cotton, corn, wheat and soybean, and featured products people purchase in stores.

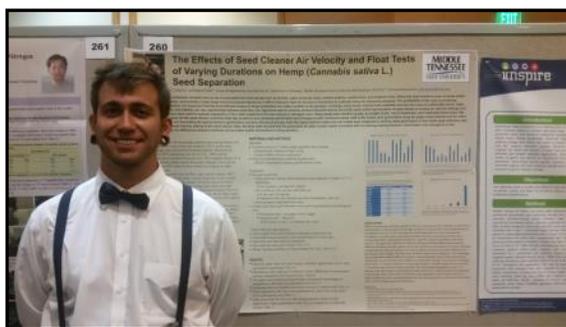
Vaught’s agritourism class also presents a special Christmas season event for children. To learn more about agritourism, agriscience and agribusiness, call 615-898-2523.

Plant & Soil Science Club

The club helped with the fall and spring plant sales in the greenhouse and also volunteered for the Murfreesboro Community Garden. The Plant and Soil Science Club serves as a sponsor to the Horticulture team. While attending the Southern Region American Society for Horticultural Science in Jacksonville, FL the Horticulture Team competed in multiple divisions and brought back several awards. The team qualified to compete in the American Society for Horticulture Science Nationals during summer break in Hawaii! Team members included Zach Stevens, Christina Aube, and Crystal Richeson and was led by Dr. Nate Phillips. Where the team placed 3rd overall, 2nd in vegetable judging, and Crystal placed 1st in fruit judging. Congratulations to the Horticulture Team!



Horticulture team at Jacksonville, Florida Botanical Gardens.



Zach Stevens, an undergraduate student majoring in Plant & Soil Science, presented a research poster in Hawaii during the American Society for Horticultural Science annual conference.

Ginseng Growers Meeting

Growers, buyers and sellers of ginseng from all across Tennessee attended the inaugural one-day **Tennessee Ginseng Growers Meeting** held at **Middle Tennessee State University** and co-hosted by the Tennessee Department of Agriculture, Tennessee Department of Environment and Conservation and the MTSU **School of Agribusiness and Agriscience**.

Led by a group that included MTSU faculty, TDEC ginseng coordinator **Andrea Bishop** and MTSU alumnus **Paul Martin Jr.**, the gathering helped growers, buyers and sellers learn where the industry is heading. "I was very happy to see so many partners from all over Tennessee," said Dr. **Iris Gao**, an associate professor in agribusiness and agriscience and researcher with the **Tennessee Center for Botanical Medicine Research**.

Gao said a survey given to the more than 60 registered attendees "will give us a better idea of the current



situation of cultivation of ginseng in Tennessee. ... Nobody has this kind of information, and I wish we could do more for the farmers."

She also discussed how MTSU will help farmers grow wild-simulated ginseng and research advances in growing techniques. Martin, who is chief managing member of Clarity Resources LLC, said after speaking to the group that the "urbanization crush of the farmland drives the need for additional revenue sources on the land."

Story by Randy Weiler, MTSU News

MTSU in China: Agreement signed to launch joint International Ginseng Institute

NANNING, China — **Middle Tennessee State University** and its primary research partner in China agreed to create a joint ginseng institute that will study, develop and promote Tennessee-grown herbal products for sale in Asia and other emerging markets. MTSU President **Sidney A. McPhee** and **Miao Jianhua**, director of the **Guangxi Botanical Garden of Medicinal Plants**, signed the agreement during McPhee's barnstorming trip through China that has taken him also to Beijing, Hangzhou and Changsha. The new International Ginseng Institute, with MTSU professor **Iris Gao** serving as its American director, will spin off from the **Tennessee Center for Botanical Medicine Research at MTSU**, which will continue to work with the garden on other projects.

"Miao said the garden plans to spend the equivalent of about \$30 million in U.S. dollars for the construction in August of a new lab at the Nanning complex to support the effort. The garden has been designated one of China's top 10 research facilities in funding priority.

He also outlined the garden's plans to hire later up to 130 researchers and staff devoted to the institute, which he envisions will eventually include an agricultural center and a "health experience center" that will extol the virtues of ginseng as a health supplement.

Ginseng, an over-the-counter supplement used to boost the immune system, was one of the first herbs from traditional Chinese medicine to be widely used. It is popular with those suffering from colds or flu or whose immune systems are suppressed, such as cancer patients. Tennessee, Kentucky and North Carolina are the top three states among the 19 that can legally harvest and trade ginseng in the U.S.

Gao said more than 100 Tennessee farmers have signed up to learn how to grow "wild-simulated ginseng," which will be sourced from wild stock and maintain the same potency and market price as wild-grown ginseng, which is greater than the field-cultivated roots. Earlier this month, Gao invited farmers and others interested in Tennessee ginseng to the first information session she will hold regularly at MTSU on her work.

MTSU recently received a \$148,000 **U.S. Department of Agriculture** grant to fund Yao's efforts and to develop an added-value certification to validate the medicinal potency of harvested ginseng root.

Miao said there is a strong demand for Tennessee-



MTSU President Sidney A. McPhee, seated left, and Miao Jianhua, director of the Guangxi Botanical Garden of Medicinal Plants, sign an agreement to establish a joint international research center for the study of Tennessee-grown ginseng. Also present at the signing in the back (L to R): Ted LaRoche of Greenway Herbal Products; state Sen. Bill Ketron, R-Murfreesboro; Dr. Iris Gao, Dr. Elliot Altman, and officials from the Guangxi garden. (MTSU Photo by Andrew Oppmann)

grown ginseng in China, particularly in major cities, because most domestic strains of the herb no longer have similar potency. Miao and McPhee also discussed creating a "one-plus-two" exchange of master's degree students, who could spend a year studying the institute's work in Nanning, then two years with MTSU researchers on the Murfreesboro campus.

McPhee said Gao's appointment as the institute's American director signaled MTSU's commitment to the enterprise. "Dr. Gao is one of our university's most talented research scientists and has the ability and drive to make this new institute a great success," he said.

Gao, who joined MTSU in 2011, earned a Ph.D. in plant molecular biology from Peking University in 2004 and also studied for three years at Yale University. She previously assisted MTSU professor **Elliot Altman's** research in MTSU's botanical medicine center and will continue to collaborate on that center's projects.

Gao's research has focused on various biological and pharmaceutical activities of medicinal plants. She has filed for three international patents of potential therapeutic agents.

Farm Credit Mid-America Accepts Students to College Leaders Scholarship Program

Louisville, Ky. (September 6, 2017) – Two Middle Tennessee State University students were accepted to the Farm Credit Mid-America College Leaders Scholarship Program, which provides professional development opportunities to students pursuing careers in agriculture.

Rachel Elrod of Eagleville and **Justin Tyler Young** of Pulaski (pictured below) are participating in the two-year program that awards twenty students with \$5,000 scholarships and learning sessions in professional growth and financial education. They were chosen based on academic performance, leadership qualities and community involvement.

“Scholarships are a direct example of our investment in the future of agriculture,” said Bill Johnson, president and CEO of Farm Credit Mid-America, “We’re proud to support students with career aspirations in agriculture. These students, their skills and their passion for the industry inspire optimism for the future of rural communities and agriculture.” Farm Credit also awarded scholarships to an additional Middle Tennessee State University student through its Customer Agricultural Scholarship program. The Customer Agricultural Scholarship recipient is **Leah Catherine Hyatt** of Bradyville, Tennessee. For additional information on Farm Credit Mid-America’s community engagement efforts, visit e-farmcredit.com/community.



Collegiate FFA

MTSU Collegiate FFA members competed in the collegiate contests held at the 2018 Tennessee FFA Alumni Convention. Members included: Sarah Ko-

zuszek-2nd Prepared Speaking, Leah Steele 3rd Ag Interview, Allison Parker-1st Ag Business Interview, the quiz bowl team placed second. Team members included: Mack Holden, Hunter Holden, Madison Armstrong and Leah Steele (pictured below).



We are proud of our Ag Education students who completed their student teaching requirements (Jordin Hockaday, Caitlin Faulk, and Abigail Frazier, left photo and Trevor Higgins, Dr. Alanna Vaught, and Alyssa Summar, right photo). Best wishes as these students begin their teaching careers!



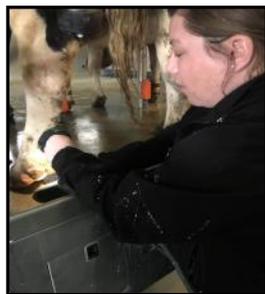
Undergraduate Research Experiences & Creative Activity Projects

URECA provides funding opportunities for undergraduate students to participate in research projects. Four Agriculture majors recently completed URECA projects. Several other students completed Honor's thesis projects.

1. **Christina Davis**, 2nd place poster competition during CBAS Scholars Day

Project title: Effectiveness of zinc-based footbath solution over industry standard copper-based solutions for the prevention and treatment of digital dermatitis in dairy cattle.

Faculty mentor: Dr. Jessica Carter



2. **Joe Gulizia**

Project title: Total and nutrient specific in situ degradation of Kudzu (*Pueraria montana* var. *lobate*) in the bovine rumen.

Faculty mentor: Dr. Kevin Downs

3. **Nolan Jolley**

Project title: The effect of sample date and timing of cuttings for maximum propagation efficiency of the grape, *Vitis aestivalis* "Norton/Cynthiana."

Faculty mentor: Dr. Tony Johnston

4. **Kayley Stallings**

Project title: Antibacterial properties of endophytic molds found in Norton grapevines grown in Arkansas.

Faculty mentors: Dr. Tony Johnston and Dr. Paul Kline (Chemistry).

5. **Justin Young**

Project title: Continental European Beef Breeds: *Their Use and Impact on the United States Beef Industry*

Faculty mentor: Dr. Jessica Carter

Student researcher studies Kudzu in middle Tennessee

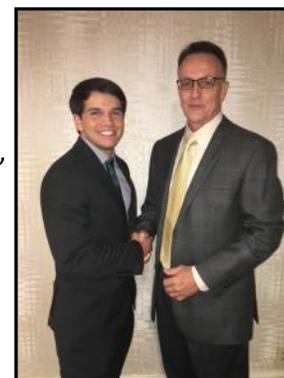
Joe Gulizia, senior Animal Science major and Honors College scholar, is exploring the value of Kudzu as a feed for ruminant animals. During Summer 2018, Joe completed four in situ rumen degradation studies to quantify the digestibility of Kudzu within the rumen. One of the School's ruminally fistulated bovines was used for the in situ work. Ruminants can be utilized as a biological control mechanism for Kudzu.



Tennessee Poultry Association Scholarships

Students recognized by the Tennessee Poultry Association. Joe Gulizia and Samantha Giffin, both Animal Science majors in the School, were recognized by the Tennessee Poultry Association as 2018 recipients of poultry career track scholarships.

The School of Agriculture is very appreciative of TPA and the Tennessee poultry industry for their support of our students' future endeavors. Congratulations Joe and Samantha on this recognition!



Purina Nutrition Center donates research and teaching animals

The Purina Nutrition Center in Gray Summit, MO generously donated more ruminally fistulated Holstein steers to enhance animal nutrition research and teaching efforts in the School. The School now has a herd of four ruminally fistulated bovines, one of the largest herds in the State!





Make a Gift

School of Agriculture – 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!



If you need our assistance or want to send us a note, please contact Dr. Jessica Carter (jessica.carter@mtsu.edu, 615-898-2169) or Mrs. Debbie Strobel, executive aide (Debbie.strobel@mtsu.edu, 615-898-2523).

The Horse Science Center publishes an annual newsletter, too. Check out the news and information about our Horse Science Program at: <http://www.mtsu.edu/programs/horse-science/>

Be sure to check out our Webpage:
<http://www.mtsu.edu/agriculture/>

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Dr. Kevin Downs, Associate Professor of Animal Science
Dr. Iris Gao, Associate Professor of Plant Science
Dr. Justin Gardner, Associate Professor of Agribusiness
Dr. John Haffner, Veterinarian, Horse Science
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