

The Dean's Notes



s we approach the end of the Spring 2021 semester, it comes as no surprise to me to say that we not only survived, but prospered during this unprecedented time of the COVID-19 pandemic. Under the guidance of our excellent administrative leadership, the university did a tremendous job of adapting to a virtual world for our students. I have watched our students, faculty and staff put their best foot forward in teaching and learning through more digital platforms than ever before. The technology side of learning became prominent and a priority for all of us as we learned to teach classes, interview candidates, and conduct meetings online on a daily basis. I could not be more proud of the personnel in the COAG and how they accepted the challenges that arose with the COVID-19 pandemic.

Thanks to our diligence as a nation and our community, we believe the coming fall semester will be a much more normal picture of a pre-pandemic semester. We have been working on expanding our reach, even during these tumultuous times. As an example, we worked closely with the University of Arkansas-Fayetteville to establish a degree program in poultry science at MSU. This fully executed 3 plus 1 agreement will allow students to double major in poultry science and animal science thereby earning two baccalaureate degrees from two top tier institutions within a 4-year time span.

In addition, this semester the Agribusiness, Ag Education, & Communications Department hired a new

faculty member, Dr. Kelsi Opat. Dr. Opat will be joining the agricultural communications program in the College of Agriculture, teaching news writing in agriculture and public relations in agriculture, among others. Welcome, Dr. Opat! We are glad you are here.

We also hired Thomas Barker as a field and maintenance worker for the Mountain Grove Campus. Tom has been working for us part time since 2014, so we're thrilled to have him on as full-time staff. Welcome, Tom.

As this semester draws to a close, we are in the process of advertising and hopefully will soon hire, for a brand new position in the College of Agriculture. For the first time, we will have a position dedicated solely to recruitment, marketing and retention. This position will involve handling our social media platforms, website maintenance and updates, running recruiting events at schools, fairs, and conferences both locally and nationally, and hosting student events, among many other responsibilities. This individual will work closely with all of our faculty and staff to help expand the Darr College of Agriculture in positive way.

We have so much to be thankful for and so much to look forward to in 2021 and beyond. I want to thank all of our alumni and supporters who have stood beside us and continued to support us along the way. The Darr College of Agriculture and Missouri State University continues to thrive, and we are so grateful for your continued encouragement and support.

Ronald P. Del Vecchio

Meet the Writers



Taylor Allee Copy Editor Tipton, Missouri



Mackenzie Courtouise Layout Editor Bourbon, Missouri



Claire Eggerman Advertising Editor Carlyle, Illinois



Kathryn Horner Photo Editor Curryville, Missouri



Nicholas Kientzy Silex, Missouri



Brooke Newell Anita, Iowa



Olivia Robinson Managing Editor Washington, Missouri



Emily Selby Layout Editor Godfrey, Illinois

A Letter from the Editor;

Then our seperate college journeys began four years ago, none of us imagined that we would be closing this chapter of our lives together by producing this magazine. It's been a short three months since our final spring semester began and as we get ready for the next part of our lives, we are proud of where the journey this final culmination of our undergraduate years has led us. Our senior class has brought different talents, backgrounds and expertise to the table to create the 2021 Darr Difference. We want to thank you for being here and reading what has been four years of classes, projects, tests and experiences in the making.

Our magazine features 16 articles, which tell the stories of people, events, hardships and triumphs within the last year. I want to thank the individuals among our

team that ensured each and every part of this magazine is perfect for our readers to enjoy.

Claire Eggerman worked diligently with the class and community to ensure that advertisements were sold.

Kathryn Horner, photography editor, was a great sounding board for graphic and photo ideas. In the creation of this magazine, it took many days of reviewing and editing. Taylor Allee spent countless moments editing and reviewing each story. Between her presence in class and dedication outside of class, she has gone above and beyond to make sure each story was successful.

Designing the magazine was no small feat. Mackenzie Courtouise and Emily Selby worked endlessly to put together the backbone of the magazine. Our small class of writers and editors are proud to produce this magazine for you to read. The writers listed above, as well as, Nicholas Kientzy and Brooke Newell hope you enjoy what we have been so proud to produce.

I want to lastly thank our advisor, teacher and mentor, Katelyn McCoy, who has been there for us since our first day at Missouri State. Without her, we would not be where we are today: graduating and getting ready for the next part of our lives. She is a constant supporter, who has pushed all of us to be the best versions of ourselves.

Thank you for reading a magazine that means so much to us all. It's been an honor to tell the stories from within the Darr College of Agriculture, we and hope you enjoy it.

Sincerely, Olivia Robinson

TABLE

Alumni & Staff



Back To Your Roots

Missouri Farm Bureau President, Garrett Hawkins, reflects on his time at Missouri State

Activating Alumni Darr College of Agriculture alumni take steps to

make a positive impact on the current student body

A Different Path

Darr College of Agriculture alumni find a home outside of traditional agriculture

Helpful Hands Administrative assistants in the College of

Agriculture share their stories

Friendly Faces



ROTC

Tana Anderson sharpens military leadership skills while pursuing a major in the College of Agriculture

Funding For The Future

Darr College of Agriculture students create unique financial opportunities to fund their college expenses

Unsung Heroes

The crew who held the Darr Agricultural Center together during COVID-19

Ask Tractor Mike

Mike Wiles' agricultural YouTube channel and teaching platform helps make lives easier

About the Cover: The Darr College of Agriculture offers per course classes that allow students to get out of their comfort zone and try unique courses like Floral Design. Pictured on the front cover are flowers arranged by Emily Selby, a Floral Design student. Photo courtesy of Emily Selby.

OF ENTS

From Then to Now

34

Delta Tau Alpha

Recognizing academic achievement among students in the field of agriculture since 1959

37

Find Your Passion

The Robinson family makes their mark on Missouri State one generation at a time

41

Here By The Owl

How one family has turned a college degree into a family legacy

46

Positive Mindset in Ag

Maintaining positive mental health is challenging but resources can help



48

VESTA

Giving Missouri State Students Wine and Grape opportunities around the world

50

Stop and Smell the Roses

Per course classes give students the chance to expand their skills in new ways

52

Joining the Real World Through the Click of a Button

The Ag Industry Study innovates ways to reach current agribusiness students

56

Friend Or Foe: The Story Behind Plant-Based Protein

Informing consumers about plant-based protein and its relationship with agriculture







NEWLY ELECTED MISSOURI FARM
BUREAU PRESIDENT, GARRETT
HAWKINS, REFLECTS ON HIS TIME
AT MISSOURI STATE WHICH LED
HIM TO WHERE HE IS TODAY

By: Claire Eggerman

Garrett Hawkins has had a passion for agriculture for as long as he can remember.

Having grown up on a farm in Appleton City, he knew he would find himself advocating for the agriculture industry in some way. From being a Missouri FFA state officer, to serving as the deputy director of the Missouri Department of Agriculture, to being elected as the new Missouri Farm Bureau President in December of 2020, Hawkins has had a heart for service since he was young, and knew Missouri State University (MSU) could make him a better leader.

THE FIRST MEETING

In the spring of 1998, Hawkins was elected to serve as the first vice president of the Missouri FFA Association. Still, like many seniors, Hawkins was deciding on where he would start his college career. Dr. Anson Elliott, director of the Darr School of Agriculture at MSU, knew of Hawkins' character and wanted to do what he could to help.

As Elliott made the drive to Appleton City High School, Hawkins waited patiently with his family in his high school's agriculture classroom. An hour and a half later, Elliott arrived. While there were other colleges on Hawkins' mind, Missouri State stood out to him.

"I'll never forget it, Dr. Elliott said, 'I may not be able to offer you the scholarships that other universities have to offer but I can tell you that if you come to Springfield, I will always be here to support you," Hawkins said.

In that agriculture classroom, at that moment, Hawkins knew he wasn't going to be seen as a number, but as a person who has the potential to make a difference.

NEW OPPORTUNITIES

It wasn't long after he began school at MSU that Hawkins stepped into leadership opportunities within the Darr School of Agriculture. Familiar with Farm Bureau, and with the encouragement of Dr. Elliott, Hawkins became actively involved with the MSU Collegiate Farm Bureau Chapter. During his sophomore year, he decided to run for the position as one of the bureau ambassadors. Representing St. Clair County, Hawkins entered the competition and was selected as the male ambassador.

After learning more during his year as an ambassador, between his sophomore and junior year of college, Hawkins made it a goal to intern for Missouri Farm Bureau. However, plans do not always work out a certain way. Crushed after not being selected, Hawkins thought it would be best not to run again. Dr. Elliott encouraged Hawkins to try again for the summer before his senior year because Elliott saw the potential Hawkins possessed.

"He took every one of his so-called failures and took an optimistic approach in order to learn from it," Elliott said.

Hawkins was selected as the legislative intern for the Missouri Farm Bureau the summer before his senior year.

"HE TOOK EVERY ONE
OF HIS SO-CALLED
FAILURES AND TOOK AN
OPTIMISTIC APPROACH
IN ORDER TO LEARN
FROM IT."

-DR. ANSON ELLIOTT

"That internship is what cemented my love for advocacy, policy and the intersection of all of us that work in agriculture, who take our passions and beliefs, and share are views with policymakers and elected public officials," Hawkins said.

Hawkins knows that these achievements were not accomplished on his merits alone.

"All of those experiences came



Garrett Hawkins and his son work diligently on their family's farm. He takes pride in educating the younger generation about agriculture. Photo courtesy of Missouri Farm Bureau.



Garrett Hawkins advocates for Missouri Farmers. Here he is at a conference in Washington D.C. speaking with fellow farmers. Photo courtesy of Missouri Farm Bureau.

from my experience at Missouri State because one person, in this case, Dr. Elliott, gave me the nudge that I needed early on in my freshman year that then fostered growth through all the youth programs," Hawkins said.

"HE HAS A PASSION FOR AGRICULTURE, ESPECIALLY **FAMILY FARMS AND WILL** TAKE MISSOURI FARM BUREAU TO A NEW LEVEL." -CODY GARRIS

During his time in college, besides being involved in Collegiate Farm Bureau, Hawkins was an active brother of the Missouri State University Alpha Gamma Rho Fraternity. In this organization, Hawkins interacted with other fraternity members and gained close friendships that still impact him to this day. Cody Garris was a freshman when Hawkins was a senior and ever since they met, the two have been great friends. Even though the two did not have similar classes, they still continued to have a close friendship through activities such as Alpha Gamma

Rho and University Ambassadors, the student-led tour guide program at Missouri State.

"He is always so inclusive and such a good people person," Garris said. "He is one of those guys who has all friends and no enemies."

Garris noticed the family environment that the College of Agriculture had and felt that Hawkins was a big part of that feeling.

THE NEXT JOURNEY

Hawkins' experiences during college propelled him forward into a career of advocacy and policy with Missouri Farm Bureau as the Director of National Legislative Programs. As a 22-year-old, Hawkins found himself being the youngest out of his coworkers but that didn't stop him from fulfilling his purpose of helping others. Hawkins served in this position for 14 years.

His responsibilities included monitoring and advocating for the beliefs of Missouri Farm Bureau in Washington D.C. and aiding farmers and ranchers in the state of Missouri to get the issues out into the public. Describing this as his dream job, Hawkins loved being able to communicate with so many people about issues that he believes strongly about. Though in his dream job, there was a longing to return to his farm. Hawkins always saw himself coming back to work with his family in production agriculture. He and his wife believed it was time to head back to Appleton City to raise a family and assist his brother on the farm while still working at Missouri Farm Bureau, so things began to change.

State government was never what Hawkins had envisioned for himself but a friend of his. Chris Chinn had different plans. Chinn was selected to serve as the director of agriculture for the state of Missouri in 2017 and wanted Hawkins to be by her side as the deputy director.

"It was one of the hardest decisions I've ever made," Hawkins said. "We were transitioning to the farm at the time, so taking that decision meant that I would be back and forth from the farm."

Hawkins felt he had a responsibility to help the agricultural community and chose to accept the position.

"It was something we felt strongly about as a family. It was an opportunity to serve Missouri agriculture and rural communities from that post," Hawkins said.

A DIFFERENT PATH

Hawkins valued the time spent in this position, as he believes there is something special about the opportunity to be a public servant. After serving in this position from 2017 to 2019, he was elected to serve as the Missouri Farm Bureau president in December of 2020.

In his current role, no day looks the same for Hawkins. Whether it is driving to counties throughout Missouri to meet with members or sitting down for an interview to speak on behalf of Farm Bureau. Hawkins strives to do all he can to advocate for the agriculture industry.

Those around him feel he is

more than capable of thriving in this new found challenge.

"Garrett sees the value in every person," Elliott said. "He wants to hear what people have to say and not just accept a problem but fix it."

Garris was also not surprised by the results in December.

"I was very excited for him and I think he is going to do great things since he has the ability to communicate and relate with people," Garris said. "He has a passion for agriculture and family farms and will take Missouri Farm Bureau to a new level." "IT WAS SOMETHING WE FELT STRONGLY ABOUT AS A FAMILY. IT WAS AN OPPORTUNITY TO SERVE MISSOURI AGRICULTURE AND RURAL COMMUNITIES FROM THAT POST."
-GARRETT HAWKINS

Throughout all his accomplishments and achievements, Hawkins remains humble. He remembers where he came from and how vital his time at MSU was.

"Knowing that I had a group of professionals at Missouri State that cared about me and cared about my dreams made me feel confident when stepping out into the world," Hawkins said.

He believes the support and encouragement he received at MSU made him a stronger leader and has set him on the course he is on today.



Despite his busy schedule, Hawkins takes time to help out on the farm. His passion is for small Missouri farms and giving the farmers a voice. Photo courtesy of Missouri Farm Bureau.



417-232-4737





Join our Rader's Store Shopping Group on Facebook

PO Box 321 727 Main Street

Lockwood, MO 65682







ACTIVATING ALUMNI

Darr College of Agriculture alumni take various steps to make an impact on the student body at Missouri State

By: Kathryn Horner

issouri State University prides itself on the network of leaders that make up their alumni. With over 120,000 alumni across the globe, the Missouri State University Alumni Association keeps the leaders of the past united with the students of the present. Through the Association, alumni can attend networking seminars and banquets to stay connected, and some also raise money for scholarships for current students. The Darr College of Agriculture has their own group dedicated to these efforts, the Ag Alumni Association.

Each year the Ag Alumni Association hosts a banquet that generates scholarship money that will be allocated to students in the following year. In 2020, with a virtual banquet, the association generated \$18,825 to go toward the scholarship fund. With a generous donation match from Bill and Virginia Darr, the grand total raised was \$37,650.

Alumni also make a continuous impact on the university through events and activities. This past year, while the Agriculture Industry Study class was online, numerous alumni reached out and made career connections for the students taking this class. Previous Agricultural Communicators of Tomorrow (ACT) members have come back to help current students during their

meetings and events. During FFA contests that are held on campus previous alumni help judge or run these events.

The Darr College of Agriculture makes a huge impact on its students during their collegiate years. Alumni have been returning to campus or helping out the college in multiple ways. It is the help from alumni who have walked the same path that the current students are that make events at the College of Agriculture richer in tradition and success. The Ag Alumni Association is not a club or group, but more so a family of members who want to provide the best experience for current students.



Member FINRA | SIPC

Timothy E. Schulte

Chairman Financial Advisor

7777 Bonhomme Avenue Suite 2400 Clayton MO 63105 **T** 314 727 9074 **M** 314 303 4545 **TF** 800 264 0897 **tschulte@smithmoore.com www.smithmoore.com**



We're so glad to beeee back!

You're invited to the 10th annual Ag Celebration with Alumni and Friends!

Join the Darr College of Agriculture for dinner, live auction and more to support College of Agriculture student scholarships and support. The event takes place at the Bond Learning Center located at 2401 S. Kansas Expressway, Springfield, Missouri. Doors open at 5:30 p.m. To purchase tickets, visit ag.missouristate.edu or call 417.837.2500.

October 23rd Bond Learning Center 6p.m.



ollege is the time where students discover the path they want to take to further educate themselves. Decisions are made and paths are chosen to decide which major, and sometimes minor, students want to pursue with their college experience and future careers. Agriculture is an industry that several Missouri State University students choose to study. Typically, students that graduate with an agriculture degree from Missouri State plan to go into the agriculture industry after college. However, for two recent College of Agriculture alumni, their paths led them to a different outcome.

Alyssa Killingsworth

Alyssa Killingsworth originally wanted to do something with agriculture, but she soon realized life brought her down a different path. Killingsworth was among some of the first to graduate from the agricultural communications program at Missouri State, and she received her masters in plant science. Coming from a family farm and having family involved with Missouri Farm Bureau she thought this was her chosen path. Growing up on a family farm taught Killingsworth more than farming.

When her time at Missouri State came to an end, Killingsworth pursued the grape and wine industry working for Missouri State's VESTA program. From there, Killingsworth found her way to Convoy of Hope with the help of the director of the former School of Agriculture, Dr. Anson Elliott. Today, Killingsworth is the Partner Relations Manager at Convoy of Hope, where she works with diverse groups and communities. Looking back on her college experience, Killingsworth has no regrets about the path she chose.

"I love my background in agriculture, I think you get a lot of tradition, values and a good work



ethic," Killingsworth said. "Going into agricultural communications taught me how to advocate and that is a huge part of my job now."

Although her career does not directly tie to agriculture, her job still includes networking with global agricultural organizations to see how they can maximize their impact in developing countries.

Taylor Mize

Taylor Mize grew up in a small rural town in Missouri, and his interest in agriculture led him to the School of Agriculture. After meeting with Mr. Jim Bellis, Mize decided he wanted to attend Missouri State. "It just really felt like a family with a small connected setting," Mize said.

Initially graduating with an agricultural business degree with an emphasis in finance and management, he soon realized this wasn't the only thing he wanted to pursue. One summer, Mize got a job in an independently run pharmacy, and instantly recognized the difference that pharmacists make in people's lives; he wanted to be a part of it. With only a few classes left Taylor decided to finish his classes and get his degree, then immediately transitioned to pharmacy school.

"I made a lot of really good friends and developed a lot of skills that some of my classmates now don't have."

-Taylor Mize

According to Mize, the School of Agriculture taught him how to connect with people and made him a well-rounded person. In pharmacy school students learn about the science side of the industry, but don't focus on business tactics or how to connect and interact with patrons of the business.



Mize prepares a vaccine to be used. He graduates from pharmacy school in May 2021. Photo courtesy of Mize.

While in Tanzania, East Africa, hosting a disaster preparedness training event, Killingsworth was approached by local children playing around the church. Photo courtesy of Killingsworth.

"I made a lot of really good friends and developed a lot of skills that some of my classmates don't have," Mize said.

Both Killingsworth and Mize chose the Darr School of Agriculture and pursued a different path than originally intended. According to Mize and Killingsworth, don't be afraid to follow your heart and do what you truly want to do. They also agree that the benefits from the personal connection that agriculture gives is unmatched by other degrees. In the end, they encourage future students to follow their heart and do what truly makes them happy.



Helpful Hands

Administrative assistants make impacts on the operations of the Darr College of Agriculture

By: Claire Eggerman

There is not a single day in the College of Agriculture that is the same. As events are occurring, students are studying or professors are researching, something is always happening in the College. While it may seem chaotic at times, the administrative assistants are working behind the scenes to get the job done. Throughout the years, these ladies have put their hearts into serving the students, faculty and staff around them.

Rhonda Breshears, Executive Assistant to the Dean

Working for the College of Agriculture could be considered a family tradition for Rhonda Breshears. Having a mother who worked as an administrative assistant in the former Darr School of Agriculture, Breshears learned what it took to work in higher education. Education was something that Breshears was well experienced in since she homeschooled her children and taught pre-school. Having

an appreciation for education, Breshears went on to work at Drury University where she was primarily working with students. After hearing stories of her mom's experience at Missouri State University (MSU), Breshears searched for a new job with the university.

Breshears began working in the financial aid office at MSU but knew this wasn't the right fit. She missed having the daily student interaction. In the financial aid office, Breshears' main job was running reports. Breshears would listen to her mother's stories about how happy she was working in the College of Agriculture. Breshears knew immediately she would love to work there and hoped it could be a possibility. Director of the School of Agriculture at the time, Dr. Anson



Rhonda Breshears and student Jessica Bishop work together at Salute to Agriculture. This event hosts various FFA chapters throughout southwest Missouri. Photo courtesy of Mike Klem.

Elliott, commented to Breshears' mom that he wished there were two of her. While Breshears' mother didn't have a clone, she had a daughter who already worked for the university. Eight years later, Breshears continues to work in the College of Agriculture.

Right before she was hired, Breshears had another potential job opportunity, but Elliott personally called her and asked if she would work in the School of Agriculture instead. Since then, Breshears has been in the College helping as many people as she can every day.

"I love that I can help in anyway I can." -Rhonda Breshears

Over the years, Breshears has been a part of numerous successes including the School of Agriculture becoming a college. Witnessing the hard work her mom put in, she saw firsthand how important the change was for many individuals, making it a highlight of her career. With her job, she has learned that flexibility is crucial. Even if Breshears' day is planned out, she stops what she is doing and is there for support in any way imaginable.

According to Breshears, part of the fun of her job is the unknown. Collaborating with the other administrative assistants, Breshears does her best to think on her feet when a situation arises.

"If it were me walking through those office doors, I know I would want to feel cared for, so we try to do that for the students," Breshears said. "The students are my job. I love that I get to help in any way that I can."

Even though Breshears did not grow up with an agriculture background, she could not imagine working anywhere else.

Jean Cobban, Agricultural Business Department Administrative Assistant

Pharmacy school was on the radar for Jean Cobban as she attended college at MSU After a few classes, Cobban realized that pharmacy was not where she wanted to be. A good friend of hers, majoring in agriculture, noticed that Cobban was having some trouble deciding what was next for her future. Her friend encouraged her to meet with a representative from the College of Agriculture.

As she began studying agronomy, Cobban also enrolled in a few agricultural business courses and began to thrive. She had found her place in agriculture as a double major in agricultural business and agronomy. After graduation, she combined her two majors and began working at a pickle plant. As the quality control manager, she

monitored the plant and made sure shipments went out to restaurants and fast-food businesses, including Wendy's and Burger King. As her husband was graduating college and they were looking at starting a family, the 60-hour work week Cobban was putting in would not be sustainable for long.

Enjoying her time at the plant working on inventory, she searched for jobs that would hone in on her skills in agribusiness. Cobban went on to work for a chemical distributor corporation for 13 years in customer service.

In 2008, Cobban was let go due to the recession that hit the United States. It wasn't too long after that Cobban began her career in higher education. Drury University hired Cobban to work for their online education department where she worked under the director and helped students build course schedules. Right before Cobban's daughter enrolled at MSU in 2015, She accepted a position as an



Jean Cobban (left) and Karla Deaver attend a press conference at the Bond Center. The administrative assistant team often help run successful events for the College of Agriculture. Photo courtesy of Mike Klem.



Rhonda Breshears, Carrie Crews and Mike Klem pose with their new awards. These were given to them for their service to Missouri State University. Photo courtesy of Missouri State Visual Media.

administrative assistant in the advising center for MSU. While working at the advising center, Cobban would see students who were uncertain about what career path they wanted to take. Cobban resonated with this and did anything she could to help. Cobban was especially excited when a student took interest in agriculture.

As much as Cobban enjoyed working for the advising center, she always wanted to return home to the College of Agriculture. An administrative assistant position opened in 2018 and Cobban knew this was meant for her.

While working in the College of Agriculture, Cobban has assisted behind the scenes. What Cobban values the most about her position is being there for students, even in a small way. Having daughters that go to Missouri State University, Cobban knows what the students and parents are going through and is there to help.

Carrie Crews, Animal Science Department Administrative Assistant

Like many teenagers, high school senior Carrie Crews waited patiently to see where her next step in life began. In April of 1998, that answer arrived as she received an acceptance letter to the College of the Ozarks (C of O) in Hollister,

Missouri. While she did not have an agricultural background, Crews remembered most of her childhood being spent outside in rural Springfield, Missouri. Even though she wasn't sure what the right major was for her at the beginning, after working two years at C of O as a grounds member, she found her place as a plant science major in the agriculture department.

After graduation, Crews wondered where she would land next. Her answer came as she began her new job as a clerk at the Missouri State University Fruit Experiment Station in Mountain Grove, Missouri. Through a grant, Crews worked at the Station doing everything from making copies to

brewing coffee. She didn't care what the job was, she was happy to serve others. The grant eventually came to an end, and Crews had to find a new job. Dr. Anson Elliott, director of the then Darr School of Agriculture. obtained a new grant for Crews to continue working for Missouri State. Crews spent her time working with community colleges assisting with administrative work for a year and a half until the grant ended again. Crews began a new career as the Viticulture Enology Science and Technology Alliance (VESTA) Coordinator for Missouri. This job required Crews to travel around the state visiting different wineries and vineyards.

Being a wife and new mom, Crews knew this was not the position for her. Her family came first, and she wanted a career that would value her beliefs. Elliott took note of the dedication Crews demonstrated throughout the years and knew the university could not lose her. In 2013, Crews began working as an administrative assistant for the animal science department. Crews had zero experience in animal science but was ready to step up to the challenge. One experience in particular allowed Crews to jump feet first into working for the animal science department. Out at Journagan ranch, Crews found herself being roped into a cow wrangling adventure. Crews and a student hopped onto the gator at the ranch and headed out toward the woods down the hill to find a wandering cow. While the student ventured out to find the cow, it wasn't soon after that the cow found Crews and tried to join her in the gator.

"I was so scared that I screamed," Crews said. "The student saw what had happened and came running back to help me and we were able to lead the cow back up the hill."

After this experience, Crews was ready for any challenge that lay ahead. Every day at work is different for her and that is what Crews loves about the job.

Whether it is chasing a cow, making copies, or being there to help a student, Crews is ready to serve those around her with a smile. Her love for students is what keeps her motivated in her position in the

"I'm grateful for the opportunity to be a tiny part in something so big." -Carrie Crews

Darr College of Agriculture.

"I'm grateful for the opportunity to be a tiny part in something so big because it truly is a gift," Crews said.

It is evident that Crews works wholeheartedly for the students and views the College of Agriculture as a family. These are the people she shares life with, and they can share life with her as well. After all, Crews is known throughout the college as "Mama Carrie." Anyone who has ever met Crews knows that tiny is not the way to describe her impact.

Leslie Akers, Plant Science Department Administrative Assistant

Down the road from the MSU Fruit Experiment Station, Leslie Akers lived with her family in Mountain Grove. Growing up next door to the station, Akers developed an appreciation for the job workers were doing in the field. She enjoyed being outside, and always knew that when she grew up she wanted to be back at the station.

Akers started at a bank which led to a job teaching preschool in Mountain Grove. However her passion still lied in agriculture, and she wanted to head back to her roots at the Fruit Experiment Station. After applying for and accepting a position at the Station as a field crew worker, Akers spent her days outside working in the fields assisting with production and harvest season.

In 2009, an administrative assistant was leaving for maternity leave. The original replacement had to step down and this left the employees scrambling for someone to fill the position. Akers, having a background in administrative and education work was the perfect fit. Even though Akers isn't directly working out in the field anymore, she is an important asset to the sales and production of the fruit. wine and spirits at the Station. While typical administrative work may include copies, answering phones and drafting emails, Akers' work is a little bit different. She is also in charge of the saleroom at Mountain Grove. The work tends to ebb and flow with different seasons.

The busiest time is peach harvest. People line up at 7 a.m. to wait eagerly for peaches. The relationships Akers has made working with students, faculty and clients are a highlight, especially during the busiest seasons. She brings a personal connection to everyone.

The Fruit Experiment Station has several international students that come study at the Mountain Grove campus. There is a big adjustment for students when arriving at the station. Akers realizes that living in a small town with zero transportation and not knowing anyone can be daunting. She wants the students to feel at home while they are away from home. Known as the "American Mom" for these international students. Akers opens her door for students. In the past, she has invited the international students over to enjoy time swimming at her house and

eating a home-cooked meal. Asking the students how they are doing or if there is anything she can do to help is a small but important action Akers takes to make sure the students are comfortable and happy.

"I'm here to do whatever anybody needs, I'm here to help," Akers said.

No matter what the job is, whether it is sweeping, answering phone calls or helping students with their schedule, Akers wants to do her part and support others in any way she can.

Pam Turner, Plant Science Department Administrative Assistant

Agriculture is something that runs deep through Pam Turner's veins. She found herself loving the agriculture industry which led her to work as an administrative assistant for over 20 years at the Fruit Experiment Station in Mountain Grove. Turner was born in northern Illinois near Chicago. Six months later Turner's family moved to Summersville. Missouri. In Summersville, Turner grew up on a 160-acre farm, where she milked grade C dairy. Her family also cared for goats, chickens, turkeys and tended to two large gardens. Later in her childhood, her father accepted a position as an auto mechanic teacher, moving the family to Mountain Grove. Her father was known as an excellent auto mechanic and taught Turner all she knows about cars. Due to her knowledge and passion for cars, Turner began drag racing as a teenager.

Her hard work and dedication in drag racing prepared her for the years to come. Turner remained in Mountain Grove and accepted a job at the local bank. After working at the bank for 10 years, Turner experienced some health issues and decided that it would be best to step down from the bank to reduce

Pam Turner (left) and Leslie Akers (right) work together out at the Fruit Experiment Station in Mountain Grove. At the Station, customers can buy products such as wine and honey. Photo courtesy of Claire Eggerman.

her stress levels. After working at the bank, Turner stayed home with her newly born son for two years. Once the doctor cleared her to go back to work, that is when she was informed about the opening for an administrative assistant at the Fruit Experiment Station. Turner knew it was the perfect fit and has been at the station ever since.

"I really appreciate the diversity that this place has." -Pam Turner

From the time Turner began, she has learned that every day is different at her job. Her job consists of working on reports for the wine and spirit sales, aiding customers at the store, answering phones, responding to emails and anything in between. One memory Turner recalled, there was a consensus to drain the pond at the station due to some construction. The problem was that the pond was stocked with fish. Turner found herself in her mud boots assisting in transporting the fish from the pond into coolers.

"Some of my coworkers tried to make me kiss a fish," Turner said. "I had the fish and posed for the photo but luckily didn't have to."

That's the thing about Turner, if someone needs help, she stops what she is doing and assists with a smile and positive attitude.

What sets the Station apart from the rest is the campus is an operational winery and distillery. Despite the challenges, Turner is there through the long phone calls and copious amounts of paperwork putting in long and hard hours for licensing and certifications, among other tasks. While working at the station, Turner has worked with individuals from various walks of life. Even though the Fruit Experiment Station is in the small

rural town of Mountain Grove, it has brought people from all over the world including China, Hong Kong and India.

According to Turner, she would not have been introduced to and immersed in so many different cultures if it was not for her job at

the Station. Turner has spent over 20 years at the Station, and every day she comes to work with the determination to work hard because she is motivated by her coworkers and students.

The administrative assistants in the Darr College of Agriculture come in every day ready to help the faculty and students in the College. While no day looks the same, these ladies step up and lend a helping hand to those who need it.





Promoting and recognizing high standards of scholarship, leadership, and character among agricultural students.



Over the past 5 years, the **DARR FAMILY FOUNDATION** has helped the **TOOTH TRUCK** complete the treatment plans of 8,064 AT RISK CHILDREN. We are truly grateful for this exemplary support of children and families in the Ozarks!

RMHCozarks.org/Tooth-Truck



COMBINING SERVICE WITH STUDY

Tana Anderson sharpens military leadership skills while pursuing an animal science major in the Darr College of Agriculture

By: Kathryn Horner

t's 6 a.m., the stadium lights start to buzz while illuminating the lights. Slowly, the Betty and Bobby Allison South Stadium comes to life. Welcoming the brisk morning air are several ROTC cadets as they prepare to tackle a physical training session. Reserve Officers' Training Corps, or more commonly referred to as ROTC, is a program within the United States Army that allows students to serve while completing a college degree, without postcollege commitment. At Missouri State University the ROTC program is called the Bear Battalion. The program started on campus in the spring of 1970. Females were allowed into the program in 1974-75, with the first commissioned female officer in 1976.

The Darr College of Agriculture has its own shining cadet in the Bear Battalion program. Tana Anderson is currently a senior who has spent the last four years doing leadership training with the ROTC Bear Battalion and the 1107th HHD Aviation Group of the Missouri National Guard located in Springfield, Missouri.

Majoring in animal science, Anderson is pursuing a minor in military science so she can participate in the ROTC program. The military encourages its cadets to be well versed in a variety of

fields, which is why they only offer military science as a minor. Cadets can pursue a bachelor's degree of their choosing while still earning their scholarship commission. Because military science is only offered as a minor, Anderson decided to follow her agricultural roots and major in animal science. Growing up on a farm with horses and cattle, Anderson has always had a close relationship with agriculture. She was a member of 4-H for over 12 years traveling the country to learn about careers in the equine industry.

"One day, I would like to return to an equine-focused field of animal science after my time in the Army," Anderson said.

Following her high school graduation Anderson knew she wanted to serve as an officer in the Army. Once graduated, cadets can commission into active duty with officer status. When looking for colleges, Missouri State stood out to Anderson because of the successful officers that have gone through the University's ROTC program. The Darr College of Agriculture was also a major reason Anderson chose Missouri State. With a background in agriculture, choosing a college with a growing agriculture program was a must for Anderson.

Involvement in ROTC paired with a major in the College of Agriculture can be hectic.

"The people that serve next to you make it worth it and the opportunities it offers keeps it exciting. You get the chance to help people every day and make a difference."

-Tana Anderson



Above: Anderson and senior John Noto at Operation Agile Leader. The operation was a 10-day training on planning and executing platoon tactics in preparation for commissioning. Photo courtesy of Tana Anderson.

For Anderson, there is a more aggressive and jam-packed schedule than other students. On Monday through Wednesday mornings, Anderson completes physical training alongside her comrades at the Betty and Bobby Allision South Stadium from 6-7 a.m. Physical training includes cardio, weightlifting, rucking and fun competitions. On Thursday mornings cadets travel to Fellows Lake for tactical training where they focus on mission planning, execution, tactical movements and leadership development. On Friday mornings Anderson joins her fellow junior and senior ROTC cadets to hold headquarters meetings where they plan trainings for the semester.

After graduation, Tana has branched active duty into the Ordnance Corps and must complete her Basic Officer Leadership Course in Fort Lee, Virginia. Following graduation, she will be stationed in Fort Stewart, Georgia. Anderson will be supporting the U.S. Army's mission to support the development, production, acquisition and sustainment of weapon systems. Anderson will also be working with





Top: Anderson competing in the Brigade Ranger Challenge in Fort Leonard Wood, Missouri. Photo courtesy of Tana Anderson.

Bottom: Anderson after completing a 26.2-mile ruck for the Bataan Memorial Death March in White Sands, New Mexico.

Photo courtesy of Tana Anderson.

ammunition, missiles, electronics, and ground mobility material during peace and wartime to provide combat power to the U.S. Army. She also hopes to continue meeting people and achieving career opportunities through the military.

"The people that serve next to you make it worth it and the opportunities it offers keeps it exciting," Anderson said. "You get the chance to help people every day and make a difference."



you are interested in the **Missouri State ROTC** program and scholarships available, contact Mr. Phil Roberson, 417-836-5793; PRoberson@Missouri-State.edu







Missouri Farm Bureau supports its members and all Missourians during challenging times.

We are all navigating uncharted terrain, but Missourians can remain confident in an organization that has stood strong since 1915. Representing more than 139,000 members now, Farm Bureau continues to be the voice of agriculture, supply multiple insurance coverage options and provide quality discounts every day.

Visit us at **mofb.org** to learn more!



P.O. BOX 658, JEFFERSON CITY, MO 65102 | MOFB.ORG



By: Taylor Allee

n average, the cost of college tuition is \$35,720 per student per year. Covering this large expense can be difficult. For some, planning and saving is the path to take, for others they pay as they go. Not all college students take out loans, receive grants or are awarded scholarships. Even with these financial options the total expense of college is not always covered. Students in the Darr College of Agriculture have found unique ways to kickstart cash flow and fund their college educations.

GROWING FINANCIAL SUCCESS

What started out as a supervised agricultural experience (SAE) project in a high school FFA program quickly turned into an opportunity to cover college expenses for Grace Box. This project consists of entrepreneurship, placement or laboratory experiences and is established during the students' first year in FFA Throughout the next four years in the FFA program, SAE projects build on themselves. Each student

creates additional components to the SAE or expands their current project. An example would be to start another job or expand a beef cattle operation to add row crops.

As a first year FFA student, Box knew she wanted to focus on an entrepreneurship-based project but was not sure of the type of business she wanted to create. Livestock was a popular choice but she did not have land to raise animals. Her process led to a local community member asked if she would take over his business of growing

chrysanthemums. Immediately she jumped on the opportunity and got to work. Chrysanthemums are a type of daisy that come in a variety of shapes, sizes and colors. They are referred to as a blooming mum when multiple florets are present.

Box did not have experience growing chrysanthemums so she used the previous owner as an information source. He taught her how to grow and take care of the beautiful plants and gave her his bustling client list. After learning about the husbandry behind chrysanthemums and finding a place to grow them, Gracie's Mums was born.

At first she started out with spider mums and one color of traditional chrysanthemums. Box's mother had her own business and let her sell the mums out of her parking lot. She sold them from \$5 to \$10 and her business started blooming. Box's operation quickly grew into spider mums and three colors of chrysanthemums. Local festivals started to contact her during her second growing season to have a booth at their festival to sell her mum varieties. Box also sold mums at a couple local farmer's markets and to brides.

At the height of production, Box grew 800 potted mums at a time. To ensure they all got the amount of the water they needed, she hand watered each one every day. Her hours of labor equalled roughly seven hours a day. Box wasn't sure how much money she would obtain from selling the mums. At first it started as a way to pay for simple bills such as gas for her car. After she realized the amount she was making, she started saving it to pay for college. Box continued the business until her junior year.

"It was originally for my SAE my first year, but after I realized how much profit I could make from it, I realized I could use that for my college," Box said.

"AT FIRST IT WAS AN SAE PROJECT, THEN IT BECAME A WAY FOR ME TO BE ABLE TO PAY FOR COLLEGE." -GRACE BOX

During the six-year span of Gracie's Mums, she saved enough money to pay for three years of college. Two of those years she was at Crowder College before transferring to Missouri State University her third year. Along with paying her way through more than half of college, she created a scholarship fund in memory of her late brother.

The scholarship fund was created after her brother passed away from a car crash in 2017. Box's brother was a wrestler for Neosho High School who went on to wrestle in college. The scholarship is given to multiple senior wrestlers pursuing college.

The money Box has earned from her business fully funds the scholarships. Along with keeping the memory of her brother alive, Box was recognized at the national level in FFA for her SAE.

"I was surprised and honored that I won, I had some hard competitors who had family farms with 10 to 20 acres of land, while I was over here with just my tennis court," Box said.

Box was named 2018 Missouri Specialized Crop Proficiency Award champion, advancing her to the national contest. She was awarded National Specialized Crop Champion at the National FFA Convention & Expo.

Grace Box, owner of Gracie's Mums, photographed standing in an array of her homegrown mums. She was selling the mums at the Neosho Fall Festival. Photo courtesy of Grace Box.



PAINTING A PROFIT

What started out as a creative outlet and hobby has turned into a way to generate cash for college for Maria Boero. Working on banners and canvases with her sorority sisters heightened her love for painting and creating artistic pieces. Now an agricultural business major, Boero was a fashion major at the time and realized she could expand her creativity by painting jean jackets.

"Jean jackets were a medium I hadn't worked with before," Boero said. "Working with it felt familiar and jean jackets are not too expensive."

The inspiration for beginning her hand-painted jean jacket business started with a birthday present. Boero painted a jean jacket as a birthday present for one of her friends, Katie Creek. The love and praise she got from Creek wearing one of her jackets inspired her to paint more. She transformed her love for fashion and painting to establish her jean jacket business, 417 Denim, in September of 2020.

"It was honestly a big surprise because she gave it to me for my birthday and she never made a jacket like that before," Creek said. "I love the time and thought she put into making it for me."

Boero generates an idea for a jacket and makes it come to life. A majority of customers come to her with an idea of what they want for their jacket. She has created multiple sorority-based jean jackets along with western inspired jackets. If the customer does not own their own jacket, she gets them from retailers and begins the customization process.

Her process for each jacket consists of hand painting each component of the design. This process takes her two to five hours for a simpler design and about twenty hours for an



Maria Boero modeling one of her custom jean jackets. All of her jackets are custom drawn and hand painted by her. Photo courtesy of Taylor Allee.

"WE BOTH GOT A REALLY GOOD RESPONSE FROM HER WEARING IT AND THE LIGHT BULB KIND OF WENT OFF." -MARIA BOERO

intricate design. The general price for one of Boero's jackets is about \$35. Her sorority sisters contribute the most to her business, making custom jackets to sell at some of their events. Boero made a variety of jackets for their Valentine's Day event this past year.

When Boero first started 417 Denim, she was not sure what to put the money toward. She decided to help pay her college tuition and other college expenses. With the money from her business she has

paid for a semester of college expenses. Boero wants to continue to create and sell jackets to help pay for her remaining amount of college. After she finishes the year and half she has left of school, she is unsure of what the future looks like for her business.

Box and Boero each created thriving businesses from an opportunity. Box's business bloomed from the remnants of another business. Boero's business was established by combining two hobbies. Opportunity appears when and where we least expect. Small businesses helped these women pay for a large portion of their college careers, demonstrating that with the right tools, any idea can be used to reach your goals.



SMITH, MENDENHALL, SELBY & COLE

Steven W. Selby, Attorney at Law

- Personal Injury
- •Criminal and DUI Defense
 - •Workers' Compensation
 - Social Security

Licensed in Illinois and Missouri

Phone: (618) 465-4656 website: www.altonlawgroup.com Email: contactus@altonlawgroup.com





Unsung Heroes

Introducing the crew who held the Darr Agricultural Center together during COVID-19

By: Nicholas Kientzy

The Darr College of Agriculture has a wide range of students and staff that keep the agriculture program running smoothly. When COVID-19 hit, the job got harder. With more regulations and less workers, the upkeep and maintenance of Karls Hall and the Bond Center became more difficult. The staff at these facilities have been the unsung heroes of this pandemic. They have worked long hours to make sure facilities met requirements for students to learn and engage. One of the people behind the scenes is Zach Davis.

Davis came to Missouri State amidst the pandemic, having to quickly learn his new role as the College of Agriculture's farm operations manager. According to Davis, one of the biggest challenges the production facilities faced during COVID-19 was buying tools and supplies. Businesses in the area were not allowing customers into their stores.

"In some cases, buying a part in town would now take a few days or a few weeks." -Zach Davis

"In some cases, buying a part in town would now take a few days or a few weeks," Davis said. This is due to manufacturing issues stemming from plants being closed or having reduced hours. Warehouses and manufacturing plants closed their doors at the beginning of the pandemic, due to safety concerns for their workers. Since then, new regulations and precautions have allowed companies to open with different capacity guidelines.

Masks and social distancing are a large part of what kept the College of Agriculture a safe and healthy place for its students upon returning from quarantine. Keeping surfaces sanitized is important to maintaining a safe learning environment. The farm is a bit different, being outside allows them to social distance and not require masks. If the farm operations team is in an area or situation where they are unable to social distance, they wear masks. These regulations ensure workers and students are safe while conducting their duties.

Another person who stepped up during the challenging times of COVID-19 is senior animal science major, Will Derkum. During the pandemic, the farm operations team struggled with the short handedness of student staff. The farm operations team was unable to hire more workers, meaning bigger jobs for the few hands working.

"I feel like COVID-19 has brought the crews and staff closer together," Derkum said.

Derkum has worked on the farm operations crew longer than anyone else.

"Being one of the most experienced on the crew, I felt the need to step up and assume more responsibilities," Derkum said.

Overall Davis and Derkum agree that the main job at the farm is the same. You show up ready to work and get quality work done in a timely manner. Most of the work happens outside on the farm and from the road it might look like an ordinary day, but the farm has been affected and it is important that it keeps running smoothly. At the end of the day farmers really are the unsung heroes. Davis and Derkum

"I feel like COVID-19 has brought the crews and staff closer together." -Will Derkum

are just a few of the many hard working men and women that kept the College of Agriculture facilities running smoothly.





Find an FCS Financial office near you: WWW.MYFCSFINANCIAL.COM

Growing Relationships. Creating Opportunities. is a trademark of FCS Financial, ACA. Equal Opportunity Provider

- ✓ Competitive rates with longer terms
- ✓ Flexible payment schedules to match your cash flow
- Experienced staff to make your financing process simple
- ✓ Finance options to meet your specific needs











Cultivating Professional Women in Agriculture



Missouri State Sigma Alpha



sigmaalpha_alphaxi

Agricultural Communicators of Tomorrow.



Communicating our creativity and passion through the Darr College of Agriculture



getting involved on campus?

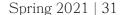
JOIN STUDENT GOVERNMENT ASSOCIATION!



Scan the QR code to learn more!



SGA



Ask Tractor Mike

76.8 K subscribers • 373 videos



Mike Wiles' agricultural YouTube channel and teaching platform helps make lives easier

By: Brooke Newell

Buying a tractor and attachments can be a confusing decision, especially for a first time buyer. Growing up on a small farm in Missouri, Mike Wiles, otherwise known as "Tractor Mike," always had a passion for tractors. Through multiple avenues, Wiles has built a wealth of knowledge and experience he is passionate about sharing with others. Wiles worked ten years for a farm equipment company and sold them for eleven years at a dealership. He has also been teaching agricultural selling as a per course class in the Darr College of Agriculture, which furthered his impact in the dissemination of information about tractors. Wiles' newest endeavor has spread to online platforms like YouTube where he can do the most good in terms of tractor knowledge.

"I've always felt empathy when one doesn't understand anything about a tractor," Wiles said.

"I look for problems that people have and I find unique ways to solve those problems."

-Mike Wiles

The inspiration to move to a virtual format sparked from needing to patch his driveway, after helping four customers who knew nothing about tractors. He looked up how to do so on YouTube, but not only did he find the perfect video to patch his driveway, he also got an idea.

"I wondered if there was a place on the Internet to go for farm tractor training how-to videos," Wiles said.

In his search, all he could find were videos from manufacturers

or retailers, so he established the Tractor Mike Training Program, a program to teach people about the basics of equipment and safety.

According to Wiles, his goal is to, "help you understand tractor lingo, choose a product that will do the jobs you need done and know how to operate it safely."

Background

Wiles graduated from Marionville High School. After high school, he went to Missouri State University, which at the time was Southwest Missouri State University. Wiles started out in the then Department of Agriculture and realized he wasn't cut out to be a farmer. He took a trip to Craig Hall, where the College of Arts and Letters is now housed, because of the study of communications, and loved it. They didn't have an agricultural

journalism degree at the time, so he majored in electrical media communication and graduated in 1980. Wiles loved media broadcasting which got him into KTTS, where he worked for 12 years. After KTTS, he got into client relations and sales at AGCO Corporation and was there for 10 years. Soon after that, Wiles began managing the Springfield branch of S&H Farm Supply. He helped the spill-over traffic from the salespeople in this role and started to see successful people save money from their job in town to pay for and move out to the country and buy tractors. He began seeing a lot of people who didn't know much about tractors. This developed into a passion for teaching people about tractors and later teaching at Missouri State University as an agricultural selling instructor.

Wiles Goes Virtual

"I had no idea what I was doing after starting a channel on YouTube." Wiles said.

So. after a couple of years of balancing both a fulltime job and his YouTube career, he realized he had to donate his full attention to his online presence. In 2014, he quit his job and became a YouTube content creator full time. Wiles posted his first video in 2012 and received 750 views. Wiles admitted the second and third videos were hard, but once he got past three it was a breeze. His continued success after those videos was based upon the ideas he thought of on how to educate people about safety maintenance. After three to four years he obtained a huge audience. Since his first video post in 2012 he has gotten 76.000 subscribers, a store online, and posted 350 videos. His favorite part of his job is the process of editing the videos. He enjoys creating ways to get his videos seen by others.

"I feel like my videos have saved people from getting hurt on tractors," Wiles said. "For example, last week someone had an old Allis Chalmers tractor and the draw bar fell off and he was pulling a plow behind it. This customer didn't realize it could very easily tip over."

He also loves to market new products on his website as well as blog and write articles and columns for farm equipment dealer magazines. Put plainly, Tractor Mike is making a difference whatever format he chooses to use. Soon, he realized he could expand his YouTube presence to a website of his own.

Part of why Wiles loves making videos for YouTube is because it allows him to offer advice on a variety of old and new tractors. His knowledge on any system is what allows viewers to utilize his videos daily. With over 76,000 subscribers, Wiles has taken a passion and turned it into a resource for others.

Product Launches

Wiles' first product launch on the asktractormike.com website was the Tractor Caddy in November of 2017, which is a tray that mounts on the roll bar. Since November he has sold 530. Most of his product inventory is from suppliers, where the order goes directly to the suppliers and then ships to the customer.

Some of his products include the Quick Hitch, of which he sells multiple per day. The deluxe sprayer for small tractors contours the tractor and is designed as an automatic flushing system. Wiles sells other tractor attachments and accessories, quick attach conversion kits, replacement faceplates, adapter kits, sprayers, grease guns and grease, tree shears, pullers and grapples. These products are all important to the customer looking for anything tractor related.

Wiles Shares Wisdom

Wiles believes becoming a YouTube creator was the most challenging thing he encountered in his career, as people would call him crazy for quitting a job for a "pie in the sky" job. To make a little extra money he picked up teaching Agricultural Selling at Missouri State University. The class meets once a week and includes the principles of selling with the application to agricultural inputs and products. This includes the relationship of sales to marketing. selling strategies, preparing for sales calls, making sales presentations, handling objections and closing sales. Along with teaching, Wiles gives YouTube advice to students. For example, Wiles encourages beginners to find an area that is underserved. Find something that isn't competitive, and no one is doing. Wiles also says to find something people are qualified in and people are looking to be educated in.

"I feel like my videos have saved people from getting hurt on tractors."

-Mike Wiles

Wiles currently has 76,000 subscribers. He has been very blessed to give out his knowledge to former and current students.

Future Plans

Tractor Mike's business Youtube channel and website keeps him very busy. He plans on adding an employee so he can go out and see his customers as well as take videos and photos of them. He and his wife are also going to travel to see iconic old tractor plants like Allis Chalmers and see old farm equipment places and "enjoy life."

DELTA TAU ALPHA

Recognizing academic achievement among students in the field of agriculture since 1959

By: Emily Selby

In the late 1950s, professors in the National Association of Colleges and Teachers of Agriculture met in Borea, Kentucky. Dr. John Schatz, horticulture teacher at Southwest Missouri State, started the conversation that there was no honor society available for agriculture students at non-landgrant colleges. Alpha Zeta was an agricultural honor society offered only to students at land-grant universities and colleges. The colleges and teachers at the meeting wanted their students to receive more recognition for the successes they achieved academically, as well as in leadership and character, so they appointed Schatz to plan the formation of a new agricultural honor society.

In 1959, Dr. Schatz, along with a group of students, presented the information and plans for the organization, and Delta Tau Alpha was founded. Officers were gathered, bylaws and a constitution were written and a seal was made which made DTA "official".

At the time, student organizations in the department of agriculture at SMSU were limited to the Ag Club and Block and Bridle, so the addition of DTA provided a 34 | Darr Difference

new opportunity for students to get involved. Agriculture students who maintained a 3.0 grade point average in agricultural classes and a 2.5 GPA overall were invited to join. Students participated in community service, helped with FFA contests and networked with members from other chapters.

Dr. Bruce Johnson was the advisor of the Southwest Missouri State University chapter for 25 years, beginning in 1987. Johnson then went on to serve as the national advisor for 12 years. He also served as president of the National Association of Colleges and Teachers of Agriculture.

"We tried to promote activities in the department to promote academic excellence. We organized a chapter knowledge bowl about agricultural subject matters. We also organized the national quiz bowl, then chapters quickly caught on and organized their own," Johnson said.

Prior to final exams, DTA also hosted a study hall where students could study together and get professors involved.

Expanding Beyond

Over the years, Delta Tau Alpha has expanded from the seven

founding chapters, to other regions of Missouri and beyond.

Students from the SMSU chapter helped develop the College of the Ozarks chapter. Mike Eggerman is a former DTA member and national president.

"I remember spending a lot of time with the College of the Ozarks members and getting to know their students when they were starting their chapter," Eggerman said.

"We tried to promote activities in the department to promote academic excellence."

-Dr. Bruce Johnson

After 1959, Delta Tau Alpha hosted national conventions in partnership with the North American Colleges and Teachers of Agriculture (NACTA). However, both associations grew, requiring DTA to host their own. Conventions were hosted at member colleges.

The chapter at Southwest Missouri State University was very active, having a large number of members, including numerous national officers.



Original Delta Tau Alpha memorabilla has been collected since its founding. Current DTA members continue to use these items in meetings and other events. Photo courtesy of Emily Selby.

Strong Leadership

Following the retirement of Dr. Glenn Karls in 1967, Dr. Schatz took over as head of the department of agriculture. At the time, Dr. Lyndon Irwin was a student in the department of agriculture at SMSU. Irwin was very active as a student in DTA and would go on to serve as a faculty advisor for DTA.

"One of my goals was to keep grades high enough to get into DTA," Irwin said. "Late in my sophomore year, I could join and I was active my sophomore, junior and senior year of college."

Irwin graduated from SMSU and continued graduate school at University of Kentucky. In 1972, he returned to SMSU to fill the role that was left by Dr. Karls when he retired. In 1976, Irwin was selected as the DTA faculty advisor at SMSU. Irwin then returned to Kentucky to earn his Ph.D.

When the national convention was held in 1977, Dr. Irwin was selected to become the national faculty advisor.

"During the convention they were selecting national faculty officer," Irwin said. "My chapter nominated me and I wasn't even there." Irwin was the first person to become a national faculty advisor that had been a member in college. He was elected because he could get along with many different people. Irwin was national faculty advisor for 10 years, longer than anyone before him had been.

"One of my goals was to keep grades high enough to get into DTA." -Dr. Lyndon Irwin

"I greatly enjoyed working with the national officer team each year," Irwin said. "In the fall, we would have an officer meeting and meet some place to prepare for the upcoming spring events."

When Irwin was chosen as national advisor, Dr. Bruce Johnson stepped in as the SMSU chapter advisor. Johnson later on became national faculty advisor as well.

Staying Active

DTA members have stayed active in the organization since the beginning. Eggerman remembers being involved with FFA contests in the spring, doing community service activities and helping other schools form their chapters. Many DTA members are even credited with

"I greatly enjoyed working with the national officer team." -Dr. Lyndon Irwin

putting together the first alumni newsletter for the Darr College of Agriculture, which transitioned into what is known today as the Ag Review, a news magazine produced by students in the agricultural communications program.

Delta Tau Alpha is still active at Missouri State and other universities across the nation. Current members are staying active both in their organization and surrounding communities. The chapter does a large amount of philanthropy events including creating cards for local nursing homes, cleaning up streets through the "Adopt-a-Street" project and sends out encouragement packages to students during finals week. The Delta Tau Alpha society may have grown over the years, but the mission is still consistent with its beginning: honoring agriculture students who demonstrate academic excellence, leadership skills and good character.







INSTANT FUN... JUST ADD WATER!



RESORT Leasburg, Missouri

RAFTING - CANOEING - KAYAKING TUBING - CABINS - CONDOS - MOTEL **AERIAL PARK - MEALS - SHUTTLES** PADDLER'S GRILL - SWIMMING POOL

(573) 245-6837 - WWW.OZARKOUTDOORSRESORT.COM













Courtouise Custom Feed, LLC

Your herd matters





Drew Courtouise, Owner (573) 259-3081 courtouisecustomfeed@outlook.com





Third Creek Creative



Mackenzie Courtouise, Owner (573) 205-2020 thirdcreekcreative@gmail.com

Photography Graphic Design

Social Media Website Design



The Robinson family makes their mark on Missouri State one generation at a time

By: Mackenzie Courtouise

The amount of change seen in one year is notable, but the amount of change seen over 29 years is remarkable. Change is a funny thing, it can be viewed as either good or bad, and no two people will ever have the same opinion on it. The chances of you and the individual next to you sharing the same thoughts on

technology improving or universities growing by the day are slim, but they are possible. The likelihood of nearly one's entire family attending the same university is slim, but it is possible. Through all of the changes and slim chances, one Missouri family has made their mark on Missouri State University since the early 1900's

when MSU was first established. The immediate family began experiencing the atmosphere of MSU in the late 1980's to early 1990's and has carried into today in 2021. Over the years countless changes have been made to the Darr College of Agriculture, referred to as the School of Agriculture until 2016. This

Missouri family has seen countless changes over the past 29 years, from the time parents graduated to now having three children as active students on campus.

Through all of the changes in the past 29 years, the love this Missouri family has for Missouri State University (MSU) has not dwindled away. In Washington, Missouri, lies a family who has a passion for Missouri State that has traveled from one generation to the next. Through changing times, each has made their lasting mark on MSU and especially the Darr College of Agriculture.

Down in History

Let's meet the Robinson family from the town of Washington, Missouri. The Robinson crew consists of Andy (father), Shannan (mother) and their daughters Macy, Kailey, Olivia and Paige. Being a bear at MSU is something the Robinson family has been doing for several generations. One could say MSU runs in their blood. Olivia's great aunt Mabel attended the university when it was known as the founding name, the Fourth District Norman School of Teaching. It was not until the third name change in 1945 when the name switched to Southwest Missouri State University (SMSU). While under this name three of their family members attended the university. Shannan's father graduated from Southwest Missouri State University in 1967 and earned his degree in education. Twenty-one years later, between 1988 and 1992, Andy and Shannan were both in attendance at SMSU when their paths crossed and their lives together began. Throughout their time at SMSU Andy studied agriculture education and Shannan studied elementary education. In 1992 they both said goodbye to the university, without knowledge of ever experiencing the feeling of home there again.

It has now been nearly 29 years since Andy and his wife walked



A walk reminiscing on old times and creating new memories is how Andy and Olivia spent their Easter weekend. They both enjoyed seeing the changes on campus and visiting old friends. Photo courtesy of Olivia.

across the stage, shook hands with the respected staff and received their bachelor's degree diplomas. Since the university changed its name to Missouri State University in 2005, three of their daughters are now in attendance: Macy, Kailey and Olivia. Macy is attending graduate school. while Kailey and Olivia plan to walk across the stage to receive their bachelor's degrees in December 2021. After 29 years, the Robinson family has had the thrill of seeing three of their four daughters, walking the same sidewalks and hallways they did just 29 years ago.

"In 2017 when we were touring colleges with the girls, Kailey and Olivia, Missouri State was like taking a step back in time," expressed Andy Robinson. "It brought back countless memories that will last a lifetime."

The family's legacy at Missouri State carries on as Kailey receives a bachelor's degree in education and Olivia in agricultural communication with a minor in agricultural business.

CoAg LegendOver the past 29 years, there have been several legends pass through the doors of the Darr College of Agriculture. Olivia's father, Andy, attended the university when it was known as SMSU and the College of Agriculture was still known as the

School of Agriculture.

"Back then there were not near the number of universities to choose from as there are today," Andy said. "Out of the few options I did have, I knew SMSU was where I needed to be, I knew it would be my home for the next four years of my life."

In August 1988, Andy sat in his first class as a college student and over the next four years did not miss his seat in class often.

"Going to class was absolutely one of my favorite things to do. The professors made us want to attend class, and they wanted to see each and every one of their students be successful," Andy said. He retains several university values: ethical leadership, cultural competence and community engagement.

"I always want to lend a helping hand and be there for others." -Olivia Robinson

In the summer of 2017, Andy and his wife took Olivia and her twin sister Kailey for a tour at MSU. What was going to be just a tour, turned into a life changing experience and open doors for Olivia. When it came time for her to make a decision on

the university she would attend, her heart lied at MSU. It was not because of the legacy her parents left, but the tremendous environment she was welcomed with. Unlike her father. Olivia did not originally come to MSU with her heart set on an agricultural degree. It was not until SOAR, an orientation event for incoming MSU students, that Olivia realized her college career and path in life was supposed to be something else. She originally intended to major in journalism, but her heart and mind quickly turned to agriculture after conversations with her family and a visit to the College of Agriculture.

"After my dad and I went and talked to Mr. Bellis, I knew the College of Agriculture was where I was meant to be," Olivia said. "I could see the memories give my dad a rush of emotions as we walked the halls, and the faculty and staff showed me that I would create countless memories here as well."

For Olivia, dedication does not stop at just being a bear. Over her four years attending the university, she has re-introduced the Darr College of Agriculture to the Robinson family, and offered a similar hand her father did several years ago.

"I always want to lend a helping hand and be there for others," stated Olivia. Olivia does just that, if not more, in her leadership roles within the agricultural communications courses. Throughout her time at MSU, she has held the managing



Andy and Shannan Robinson spending time together in 1992. Andy majored in agricultural education and Shannan majored in elementary education. Photo courtesy of Shannan.

"Through all of the changes,
the people and the
environment is still what it
was back then - home."
-Andy Robinson

editor position of both the Ag Review and the Darr Difference. Each of these are a magazine published by a class effort of those enrolled in the course, but the managing editor is the helping hand and offers guidance along the way. Her peers describe her as passionate, hard working and dedicated, which differ from the characteristics her father holds on to.

Final Mark

The saying the apple doesn't fall from the tree could not be more true between Andy and Olivia. The passion they both expressed when describing their experience at MSU was truly inspiring. When Andy spoke of his experiences and decision to attend MSU (SMSU at the time) the thrill and happiness it brought him was contagious.

"Sure, there may be bigger classrooms, more staff and thousands more students. But, it had been 29 years since our family had been enrolled at the university, and through all of the changes the people and the environment is still what it was back then - home."

BRAND EVOLUTION & STORYTELLING Mikeling with a Purpose PONEY CREEK media LET US HELP YOU TELL YOUR STORY WWW.HONEY CREEK MEDIA.COM

Content Creation • Consulting • Publications • Graphic Design • Video • Social Media





How one family has turned a college degree into a family legacy

By: Olivia Robinson



₹ake a deep breath, Rachel Mareth thought to herself as she closed her car door in the packed parking lot. As she made her way, swerving through cars, she thought to herself, do I have everything that I could possibly need? While she raced through the underpass tunnel and up the two sets of stairs, Rachel was nervous for her first day of college. As the cool breeze of a warm August day in Springfield brushed over her, she smiled at the sight of Karl's Hall, home of the Darr College of Agriculture. When she opened the double doors of the worn yellow brick building and stepped into the beginning of her next chapter, Rachel wasn't the first in her family to have had the same experience.

The Mareth Family is a family of farmers, community members and agriculture educators. Four of the seven Mareth children graduated with their agriculture education degrees and have spent time in the classroom teaching the importance of agriculture. Years later, two cousins and the children of two of the brothers also graduated with their degrees in agriculture education in hopes to follow in the footsteps of their fathers and uncles. Bud, John, Pat, David, Josh and Rachel have used the generations and years of influence with agriculture to go educate in classrooms and in the workforce. These six family members dedicated years toward educating others and along the way have learned the importance of finding something to be passionate about; for them it's agriculture education.

Bud

Bud is the oldest son of seven children born and raised in a small town in northern Illinois. Raised on a dairy operation in Dunard, Illinois, the family learned early what it meant to work hard and be there for one another. All of the seven children became very diversified in their abilities while working on the farm and going to grade school.

"Mom and Dad gave us all a chance to succeed and the foundation to do it on," Bud said. "One thing they taught from an early age was good work ethic and the ability to connect with others."

This ability to connect with others would become important years later when the family moved from northern Illinois to the southern Ozark hills of Missouri. In 1974 the entire family made the move to Purdy, Missouri where the family settled into their new life still rooted in agriculture. Through high school, Bud became even more involved in agriculture. During his sophomore year, he joined FFA and became passionate about competing with his classmates which carried him through high school.

"I have always enjoyed the challenge of growing things, physical activity and competing," Bud said. "Vo Ag and FFA are what gave me a purpose and some success during my formative years."

At Crowder College, Bud earned his Associates of Arts in Agriculture and later transferred to Missouri State University, SMSU at the time.

"Not only did I grow up around ag teachers, but I've always been around hard-working farmers. One way to honor that and to carry the tradition of a career in agriculture was to pursue my degree in ag education."

-Rachel Mareth

"I didn't really have a grand plan for after high school. Ag Education sounded like a good profession, I had some success and recognition in FFA so explored it," Bud said. "I thought I was going to return home to the farm, but by going and getting a degree it opened so many more doors for me."

After graduating with his bachelor's, Bud got a job at El Dorado Springs High School in El Dorado Springs, Missouri. During his seven years after graduation, he taught a Young Farmer's Program, adult night classes, and became really involved in education, including his own. He earned his Master's in Education while teaching younger students the importance of ag education. After getting married and having four children, Bud felt the calling toward something different-sales.

"I left El Dorado to work for Purina Mills as feed district manager and have been employed with them for 32 years," Bud said. "I currently have a small farm in Butler, Missouri, and run about 50 cows in addition to my position as a sales specialist."

Even though Bud left the classroom, he uses what he learned from his experience and education to help those around him remember the importance of agriculture.

"Vo-Ag and FFA have been very influential in my family. I tell everyone that a good vo-ag program has more of a positive impact on students than any other class they can take in school," Bud said.

His influence as the oldest child influenced for brothers as well as his children, nieces and nephews. All of his children have a degree in some area of agriculture, as well as his brothers who followed his path.

John

John, the middle child of seven, has been "all-in" agriculture from a very young age. Growing up alongside his brothers in Illinois taught him a strong work ethic which propelled him to want to go to college and leave the family, but not the family legacy.

"After high school I attended Crowder College on an FFA ag scholarship and received an AA in general agriculture. I transferred to MSU in Springfield and completed my BS in ag ed and started my graduate studies at MSU toward a master's in ag education. A master's in ag ed was only available through the University of Missouri in Columbia at the time but they allowed a limited number of credits from other universities. I finished my master's from UMC a few years later," John said.

Despite having a very similar path and being heavily influenced by Bud, John had his own passions for going to school for ag education.

"Ag education is the most diversified degree in the field of agriculture and doesn't limit itself to a single 'aspect' of agriculture but focuses on a wide swath of various disciplines," John said. "I have always been intrigued by how basic production agriculture is to life and society yet how little emphasis is placed on learning about where our food comes from or the effort and complexity of our agriculture industry. It had concerned me, from early on in my adulthood, how our food system is taken for granted, so I took this and made it a passion to better educate myself and others."

Like his brother, John has had different careers in life, however, he credits his degree and experiences in ag education to an understanding that allows him to look back at his time as an educator to something that is unique to this field.



Rachel Mareth, pictured centered, teaches lab in her student teaching classroom. "My favorite parts of teaching are connecting with the students and helping them learn how to problem solve," Rachel said. She will graduate in May 2021 with her Ag Education degree. Photo courtesy of Rachel Mareth.

"I have worked in different careers from military service, where the FFA leadership skills propelled me into leadership roles; ag sales, where the production, ag business and communications skills are essential; and in self-employed endeavors where all the skill sets from my degree area have applied, John said. "Ag education is not for everyone and it takes a commitment of time that seems extraordinary relative to some other career paths, but the intrinsic reward of helping others achieve beyond their own belief is incredible."

Pat

High school for Pat was the largest influence on where he saw himself after graduating from Purdy High School. He had three other brothers with very similar paths, however, none had the influence that a basketball coach had on him.

"In high school, I was involved in FFA and basketball, just like my brothers," Pat said. "Unlike my brothers though, I had a special connection with my coach."

During high school, Pat's basketball coach had a large influence on pushing him to succeed. One of the reasons he went on to pursue a college education is because of these relationships he had made with people like his coach. Flash forward four years and this same coach was the one who had interviewed him for his first education job.

"The principal at Crane High School was my basketball coach from high school," Pat said. "He called me up one day and asked if I would be interested in interviewing for their ag education position and I got the job."

This full circle moment was brief, for a year after he got his first teaching job, Pat realized that teaching Ag education in a traditional format was not for him.

"After my first year, I just realized that everything was 'alright', I didn't mind it, I just knew that I had learned more about agriculture outside of the classroom than in it, so I had to get out of it," Pat said. Pat got a job at George's Poultry in Arkansas and worked his way up to management after coming in at a low level position. After 26 years with George's, he is now retired but continues to work in the agribusiness industry by buying and selling stock in the rice industry.

Even though Pat was the only brother to teach for one year, he still was able to take what he had learned from Crowder College and Missouri State just like his brothers and apply that to his career.

"There's a possibility to educate, training and develop oneself no matter where you go in life," Pat said. "I knew that I could help others develop themselves more by being outside of the classroom."

If it weren't for trying to educate in a more traditional way, Pat wouldn't have the passion he does now for furthering education in other non-traditional ways.

"There's a benefit to furthering education, even education that doesn't come from a college degree," Pat said. "After you get a degree it just opens the door for you, it doesn't do anything else and that's why I wanted to help others find ways to develop themselves after the formal training is done."

David

As the youngest of the seven children, David had the most to live up too. David spent his entire childhood into teenage years in Purdy, Missouri. Being raised on the farm with his brothers and sister, taught him more than he imagined.

"The name of our farm was 'Mareth's Imaginative Frugality Farm', which is a nice way of saying; you didn't buy or hire anything until you exhausted every available resource, in every attempt, to do it yourself, with the pile of scrap you had." David said.

This work ethic and mindset, later on in life, taught him life lessons that were applicable when deciding what he wanted to do with his future career.

"I thought my family was just being cheap, which it was but, it turned out to be the best education I would receive in all my years as an educated professional," David said. After graduating from Purdy High School, David knew that he wanted to take what his father had taught him and what agriculture had given him, and incorporate that into a degree that would set him up for success in life, not necessarily in the classroom.

"I didn't want to 'major' in agriculture education in the sense that I wanted to be a teacher, I never wanted to be a teacher," David said. "I enrolled in the agricultural education program because I was told if you have an

ag teaching degree it allows you the flexibility to apply for employment across all disciplines in agriculture."

brothers played a large role in his decision to join the same program at Missouri State University. David felt like getting an agriculture education degree was "the thing to do." After graduating, however, he knew the thing to do was not get into the classroom. however. what he didn't know was that there was another, greater plan that would lead

"Once I graduated I was off to do anything but

his life.

teach. The Lord had other plans for me," David said. "In order to stay close, so my wife could finish her degree in Joplin I took a teaching job in Bronaugh, Missouri. Not what I had planned, so when my wife had graduated, I jumped at the opportunity to open and manage a new feed and farm supply store in Monett, Missouri."

After spending a year managing the feed store. David went back



to the classroom, the place he felt most at home. David has taught agriculture education for high school students for thirty years. As he looks back on his time, there is one thing that is true for him.

"The students keep you young, they have an energy and excitement that is intoxicating," David said. "I watch the enthusiasm when they win a competition and the pride they express when completing a task they thought impossible. Watching young kids turn into young successful adults and knowing that in some simple little way you were the pebble that caused a ripple that turned into a tidal wave."

Rachel

Rachel, the second generation of ag educators for the Mareth family had her uncles and older cousin Josh to look up to when it came time for her to figure out what she wanted to do. As the end of her college career draws nearer, Rachel has many footsteps in front of her that have been an example her entire life.

"Not only did I grow up around ag teachers, but I've always been around hard-working farmers. I guess one way to honor that and to carry the "tradition" of a career in agriculture was to pursue my degree in ag education. I've known for a long time that one way or the other I would be in an agriculture related career and teaching has always been something that I have been interested in," Rachel said.

These hard working farmers and leaders have taught her to follow her passions, which in the beginning was different from ag education.

"From high school I went to Ozarks Technical Community College to get a general associate's transfer degree. After a year of classes, I decided to switch it up, a week after my last final I was back in school, but this time it was somewhere else," Rachel said. "I will be the sixth person in my family to get the ag education degree and I am very proud of that, I am even more proud, though, that ag education has stayed so important in not only my family's life, but the classroom as well."

-Rachel Mareth

She attended the Academy of Hair Design to obtain her manicuring license, and after graduation she took a leave of absence from education to build up her client list. From there, Rachel's life got no less complicated. After graduating with her manicuring license, she went back to OTC to pursue a degree in construction technology and owned a business all the while.

"After 4 years of owning a nail salon, I felt like I needed a change," Rachel said.

The big change came in 2019 in the form of returning to school to combine her business and construction knowledge in one place and become an agricultural educator. Two years later, Rachel is once again beginning a new journey using old knowledge and new skills obtained throughout her education.

"I graduate in May and have already secured a job teaching at Couch R-1 High School."

Through the twists and turns of figuring out where her passions lie, Rachel has been able to lean on what her close family ties to agriculture have taught her.

"I grew up around agriculture and can remember farm life from a very young age. My background ranges from basic gardening to running a commercial hydroponic greenhouse and training horses to having my own herd of beef cattle," Rachel said. "Running the hydroponic greenhouse and going to farmers markets made me realize the disconnect between consumers and farmers. I really enjoyed talking to the public about the operation and explaining our procedures to

them. I found joy in educating people. Growing up around agriculture gives you a different appreciation for the hard work and dedication of farmers."

This joy is something that she is excited to share with the future of agriculture, just like her uncles did, three decades ago.

Whether it runs in the family or not, Rachel and her family members have found a passion for agriculture by educating others. Through their similar career choices and unique experiences, agriculture has become a bond that ties this family together. This tie is something that each one would want to continue to see stay in the family, even in new and unique ways and degrees.

"I will be the sixth person in my family to get the ag education degree and I am very proud of that," Rachel said. "I am even more proud, though, that ag education has stayed so important in not only my family's life, but the classroom as well."

As Rachel gets ready to walk out of those same Karl's Hall doors her uncles and cousin did and into the real world and classroom, she is ready to face the challenges of being a new teacher, with her family right by her side.

"I know that whatever will happen in my future as an educator and a person who is passionate about agriculture, my family has my back," Rachel said. "It's not everyday that a career is a family tradition."



To the Meadows family, family truly means everything. In the heart of their cattle operation in Cuba, Missouri, the Meadows family uses their love to face challenges within and outside of agriculture. Photo courtesy of Meadows.

POSITIVE MINDSET IN AGRICULTURE

Maintaining positive mental health in agriculture is challenging but doable

By: Mackenzie Courtouise

Cince the beginning of time, **J**stereotypes have been placed on every aspect of the world. Career choice, hometown, style and the food someone eats, are examples of stereotypes that have been developed by society. Stereotypes and stigmas can be big or small, but the negative outcomes from them are larger than one could imagine. Similar to all other aspects of the world, farmers and ranchers have been stamped with a stereotype. Their label has been marked as stoic, tough individuals who are able to push through all of the struggles and stress of the job. Sure, farmers and ranchers are tough individuals who can face challenges head on, but they are also people. They are people who have a physically and mentally challenging job, from waking up before the sun rises to

not going to bed until each task for their day is complete. Whether farming and ranching is an old tradition or a recently developed

"I WOULD RATHER BE PROACTIVE THAN
REACTIVE. I MAY NOT ALWAYS GET IT RIGHT,
BUT AT LEAST I HAVE A GAME PLAN."

-JASON MEADOWS

lifestyle, the hardships that accompany that way of life can be daunting. Mental health is a hard conversation for anyone, especially for some dedicated farmers and ranchers. They battle with the stereotype they have been labeled with and may feel ashamed, while others may be weary of getting laughed at. It is time to break the stereotype and learn how to maintain positive mental health as

a farmer and rancher, not only for individuals, but for the community of people who care for them.

It is hard for one to put themselves first when there are livestock and/or crops that need tending. It is with hope that a widespread understanding will be developed to prevent stress and struggles, recognizing when it happens and knowing resources available. In the farming and ranching world, it is inevitable to avoid struggles; harsh weather, excessive rainfall, piercing hot or frigid cold, calving season, planting season, harvesting and money are just an overview of the struggles farmers and ranchers face. The question is not 'if' mental health struggles will happen, but when.

The ability to talk about negative experiences with mental health

is hard to master, though it is essential to maintain a positive head space. Jason Meadows of Cuba, Missouri, is a healthcare worker, cattle farmer and host of the podcast, Ag State of Mind which focuses on mental health in agriculture.

"I started Ag State of Mind because I am a healthcare professional and I see what it [mental health struggles] does to someone, both physically and mentally. However, I also am a cattleman and I understand the stress and hardships endured."

Through his podcast, Meadows shares his experiences of ups and downs with his own mental health.

"I feel comfortable to talk about it where so many don't feel comfortable with talking about it, and that is okay," Meadows shared. "If having other people hear or see me talking about it lightens their load, I am willing to do that."

According to Meadows, many people are not open about struggling with mental health issues due to fear of retribution.

Although farmers and ranchers have been battling mental health for decades, there is no perfect set of steps to follow to prevent mental health issues. Instead, there are steps to recognizing downfalls, noticing tendencies and taking action. The following recommendations do not work for everyone, but they are a step in the right direction.

RECOGNITION

Surpassing the stereotype and realizing you are experiencing signs of poor mental health is the first step to overcoming it. When the recognition has set in, it may be difficult for someone to want to seek further action. A few warning signs are increased anxiety, stress or feelings of depression.



Dedicated to spreading the word about positive mental health describes Jason Meadows. Here, you can see him recording a podcast episode for Ag State of Mind. Photo courtesy of Meadows.

ACCEPTANCE

With anything in life, acceptance can be the most difficult challenge. There are many ways to accept this is happening in your life, but accepting it yourself is a major accomplishment.

REACH OUT

Occasionally, it can be difficult to talk to family about the hardships you are facing. Find someone you trust, and talk to them. You may be surprised to hear they have faced similar thoughts and challenges. Reaching out could not only help you, but the person you are reaching out to as well.

RESOURCES

This aspect could fall anywhere in your timeline, but it is important to know resources are out there that can help. AgriSafe is a resource specifically for farmers and ranchers, operated by healthcare professionals. In addition, there are counselors and hotlines available at the click of a button.

PREVENTION

You may be thinking, I can't prevent this from happening. Although this cannot be 100% avoided, new practices can be adopted to make certain aspects of farming and ranching less stressful. "I would rather be proactive than reactive," Meadows stated. "I may not always get it right, but at least there is a sort of game plan that I can just adjust."

While these are recommended steps to beating stress and struggles, know that you must do what is best for you and your loved ones. In the hard times of working 15-hour days, staying up all night tending to your farm or ranch and facing the backlash received from consumers, you must remember you are still worthy. Having a positive mental outlook is important, and remembering someone is expecting to see you at the day's end.

Víticulture Enology Science and Technology Alliance

Giving Missouri State students wine and grape opportunities around the world

By: Brooke Newell

The tasteful delightfulness and A ambience of drinking wine can be an experience. From the colorful labels with quirky, offbeat names that will never be forgotten to the unique blend of aromas, simply hop into the nearest wine market to taste new adventures. At Missouri State University. students can simultaneously further their education and help others experience wine. The Viticulture Enology Science and Technology Alliance, or VESTA, is a national grape and wine education program that includes online industry professionals, combined with hands-on experience with mentors at a vineyard or winery. VESTA offers specialized courses through Missouri State, giving students the ability to earn college credit and expand their understanding of the grape and wine industry. This wine education is offered to students in the United States and around the world.

"One of the most rewarding thngs about the program is seeing people go through the program and watching their careers take off." -Michelle Norgren

National Presence

VESTA is a national grant that was established in 2003. It has been renewed four times since its start. The program is in 48 different states and 12 countries around the world. Since 2003, the VESTA program has partnered with 38 schools with 2,000 student participants and 23 facilities. These partnerships are located in 16 states and include schools like Clark State Community College in Ohio and Northeast Wisconsin Technical College in Wisconsin. Sonoma State University in California serves as a business apprenticeship and the host site for the Wine Business Institute for VESTA.

Course Offerings
There are 39 classes offered including content in viticulture, wine business, wine making and 12 different wine apprenticeships. They are all instructor-led and have a live component once a week. The remaining course work is online in addition to a hands-on component where they work with a mentor in a

However, the live component and online format comes with challenges. Michelle Norgren is the director and principal investigator of VESTA where learning has been innovated to a hybrid model.

"People think it's hard to learn in an online format where it's so hands-on, but it has shifted and actually helped people realize

that they can learn from this and apply what's learned into their environment."

For example, 7C's Winery started because a family was living in Arizona and had land back in Springfield, so they enrolled in the program and now have their own family winery in Walnut Grove.

"VESTA brings everyone together." -David Bower

Additional Learning

As part of the program, students must attend content-specific workshops to enhance their educational experience. VESTA offers two workshops around the U.S., Century Analysis of Wine and Wine Chemistry. The Century Analysis of Wine is a two-day workshop where participants analyze white and red wine. The second workshop is about wine chemistry where participants learn about the eight basic concepts of must. Must is the skins, seeds and stems of the fruit. During this workshop, chemical tastes and acid levels are learned to know when grapes can be harvested. On the state level, VESTA has participated in the Missouri Grape Growers Conference. Students present bottles of wine and the instructors grade them on the quality of their wine. Then, their bottles are



Students can branch out to all areas of the wine production industry. Students from around the world can take classes in fruit wine production, wine equipment operation and wine and must analysis. Photo courtesy of Cassandra Clark.

presented on the trade show floor where people can taste the wine.

"It's one of the coolest things we have done as it connects power learning online with making a reallife product," Norgren said.

Career Outcomes

Charles Kelly, or CW, graduated through VESTA with his Associate of Applied Science in Viticulture from Missouri State University-West Plains. He has been selling wine for over 25 years and started the VESTA program in 2015. Before starting VESTA, he worked at the Watergate Hotel in Virginia, California and Germany. He has been a wine director at a prestigious steakhouse and worked in Washington D.C. increasing the purchasing power of wine. He enrolled in the VESTA program because he was told if he wanted to compete in the European market, he needed VESTA.

CW Kelly is currently working

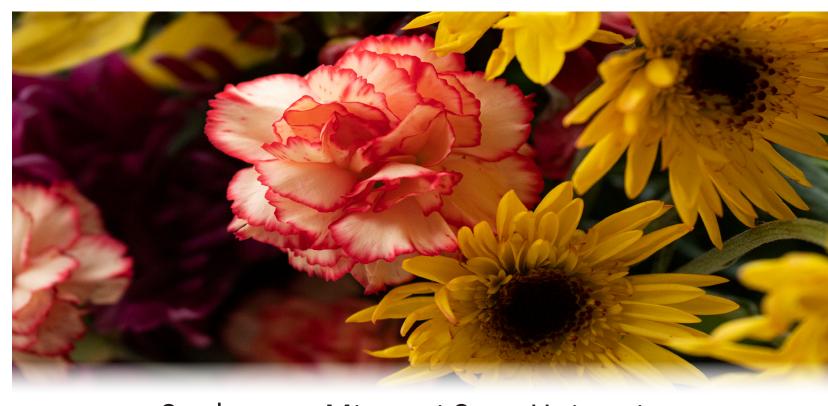
toward his Associate of Applied Science in Enology from Missouri State University-West Plains via VESTA.

Roger Matter is currently taking VESTA courses and plans to receive his Certificate in Enology in the Spring of 2021 He currently lives in California and is working at a winery. Another student, Laura Peiffer also went through the program with Missouri State-West Plains and is currently working as a lab technician for Rombauer Vineyards in Sierra Foothills, California.

"It has opened up more doors for me and changed the way the grape industry views me."

-CW Kelly

Though most graduates seek work at wineries, others decided to take a different avenue. David Bower became a winemaker and enology instructor for Surry Community College's Surry Cellars. Bower grew up in Rochester, New York, where he has always been involved in grape and wine production as his dad owns a winery. Partnering with VESTA seemed like a great fit for Bower as he had been teaching for VESTA since 2014. He feels that VESTA is a "diamond in the rough" as it is very structured and presented in a great learning manner like the classroom but online. Norgren and students continue to encourage involvement with the industry to get their name more known. They encourage other students to tell as many people as they can about the program in hopes to continue moving the enology and viticulture field moving forward.



Students at Missouri State University Stop and Smell the Roses

Per course classes give students the chance to expand their skills in new ways

By: Emily Selby

ountains of homework, timeconsuming projects and challenging exams; these are some things that come to mind for most students when they imagine a college course. The Darr College of Agriculture is changing that point of view by providing a number of courses for students to learn skills related to, but outside of the required major courses. While many classes in the college are hands-on, per course classes add an extra opportunity for students to branch out in their studies.

Per Course Classes

For many reasons, students expand their skills in per course classes. The variety of courses is wide, featuring subjects such as Wine Appreciation, Wildland Fire Management and Wildlife Law Enforcement. Per course classes provide more varied learning experiences for students and allows them to peak their interests in topics outside of their area of study.

Per course classes are available for 1-3 credit hours, depending on the class. Credits can go toward students' degrees to help fill elective and total credit hour requirements. Taking per course classes, students can continue making progress toward their degrees while taking classes in varied interest areas. Additionally, students may use per course credits to balance out the intensity of their semesters. For example, instead of a student having a schedule full of intense classes, per course options can provide relief

from having classes all focusing on their area of study. By balancing their semester out, students are also more likely to keep a higher grade point average, because they are not focused on several challenging classes at once.

Emma O'Donnell is a senior from St. Louis, Missouri, pursuing her bachelor's degree in English literature. O'Donnell typically participates in the Missouri State University Concert Band, but with restrictions due to COVID-19, she is unable to do so. Usually relieving stress by perfoming in the band, O'Donnell needed to find a new way to do so when the pandemic prevented her from performing. She found her outlet in a College of Agriculture floral design course.

"COVID restrictions made being part of the band stressful for me, so I am not performing this semester," O'Donnell said. "I took floral design because I wanted to take a fun class that would also be stress-relieving."

"I took floral design because I wanted to take a fun class that would also be stressrelieving." -&mma O'Donnell

Floral Design

One of the most popular per course classes within the College of Agriculture is the floral design class. The class teaches students real-world experiences by creating a variety of floral arrangements and designs. It also peaks the interest of students for many reasons, the most prevalent perhaps being the relief of stress that comes naturally when doing floral arranging.

Bailey Dunkmann is a senior majoring in agricultural business from St. Charles, Missouri. Dunkmann enrolled in the floral design class because she needed one credit hour to round out her degree program.

"I've always liked the plant side of agriculture and flowers are always nice," Dunkmann said. "I have also known a lot of previous students who have taken this course and really enjoyed it and the professor."

Bobbi Wixson, instructor of the floral design class, has been a professional in the floral industry for almost 40 years. After instructing a floral design class at Ozarks Technical Community College for 13 years, Wixson began instructing the course at Missouri State three years ago.

"It helps develop their appreciation for what cut flowers can really do," Wixson said. "Hopefully students learn more



Students construct their own floral design arrangements. These students are making table-top centerpieces in floral foam. Photo courtesy of Olivia Robinson.

about the cut flower industry, and they receive some joy from taking home their arrangements."

Wixson strongly believes in the positive psychological effects this class has on her students.

"Everybody likes flowers, flowers make people happy. It's kind of cool that the university offers this class, it helps make up more rounded

"Hopefully students learn more about the cut flower industry." - Bobbi Wixson

students, students from all different types of majors, from technical to more artistic," Wixson said.

With the class covering topics of color, textures and other aspects, it gives students an outlet to develop a more creative side.

The floral design class is almost always full, with the maximum capacity being limited to 15 students, and the class being offered twice per semester. With the growing interest in this area of study, and floral design being

a growing market, Wixson hopes that in the future there may be opportunities for more advanced classes such as wedding planning and event planning.

"Some students take my class because they want to DIY their own wedding flowers," Wixson said.

She also said she feels that adding a wedding planning class would better prepare students for potential projects after graduation.

"I really enjoy it tremendously, from the first one (arrangement) a student does in class, to the end when they're much more proficient, relaxed and having a good time. I want it to be enjoyable. It's skills they will use later in life, if they enjoy having flowers around," Wixson said.

Joining the real world through the click of a button The property of the click of a button through the click of a button thro

Share screen

The Ag Industry Study innovates ways to reach students

Schedule

By: Olivia Robinson

hen the Missouri State University College of Agriculture added the Ag Industry Study (AIS) as a graduation requirement for all undergraduate agribusiness majors, students had never seen a course as handson as this one. Junior and senior agribusiness students take a weeklong class as a summer or winter intersession course and travel to Kansas City, St. Louis or other small towns that have powerful roles in agriculture. This hands-on experiential learning has brought the classroom in to the real world

for over 55 years and continues to allow industry leaders and up-and-coming graduates to connect.

Leading from the middle of the state

Springfield is located in the middle of two of the largest agriculture hubs in the state, making Missouri State only a bus ride away from gaining hands-on learning. Dr. Arbindra Rimal, Agribusiness, Education and Communications Department Head, began working at Missouri State and the AIS program 21 years ago and noted right away

that this experience was one of a kind for students and employers.

"Being in the middle of St. Louis and Kansas City is a great opportunity for students who haven't been able to travel across the state and meet with these companies, not everyone can get on a bus and go visit in person with leaders in the agriculture industry," Rimal said.

Today, the AIS is considerably more than Rimal could have imagined. The mission behind the class has stayed constant over half the century, even as the class has evolved into what it is today with leaders who are constantly trying to advance it.

"Now we are incorporating community engagement, asking questions and [giving] time for students to engage in conversations with each other," Rimal said. "Before these things were never on our radar and now it adds value to the class.

Nichole Busdieker-Jesse, Missouri State agribusiness instructor, started teaching in January 2016, just after the 2016 session of the AIS. A year later when the 2017 session was beginning, she became fascinated with this idea of getting students into the real world.

"As a professor who is so passionate about ag business, it's difficult for me to sometimes give my students the same opportunities that students studying animal science get," Busdieker-Jesse said. "It's not like we are out working with animals everyday; we don't always get to have hands-on experience."

The AIS opened her eyes to a whole new world of opportunities for students who traditionally don't see themselves working anywhere but one place, like a bank. During Busdieker-Jesse's first year traveling with Rimal and the students, she was blown away at how many students had no idea they could work for different companies all with an agribusiness degree.

"That first year was so eyeopening for me," Busdieker-Jesse said. "I just sat there amazed and knew that we had to grow this

program even more."

One of the biggest difficulties in having a class based on traveling over one packed week of meetings and assignments is the number of students that need to take this course and the time constraints. Busdieker-Jesse almost immediately saw a need for an addition to the winter intersession class.

"As I sat in these huge corporations it was amazing to think 'this is agriculture'," Busdieker-Jesse said. "That's when I realized for some of these kids agribusiness is back home in a small town, too."

She took what she realized and with the help of Rimal, added a summer option to travel to

her hometown and learn what agribusiness means for graduates that go back home and work for their local grain elevator or as a loan processor in their small town bank.

"Agriculture is more than just big towns and big businesses versus small towns and family-owned operations," Busdieker-Jesse said. "Having a summer option that can get out of the rotation between St. Louis and Kansas City really gives a different opportunity to students."

With the addition of a summer option, more students are able to meet with industry leaders through the AIS.

Learning in the field

Natalie Benne, a Missouri State graduate assistant took the class in the winter intersession of 2020.

"The Ag Industry Study is a chance for students in agricultural business programs to see inperson all that companies have to offer," Benne said. "Going to these places of business also meant we got to ask questions right to the experts as well as engage in great conversations with them."



Students meet at the Bond Center for the winter 2021 Intercession Ag Industry Study session. "I knew it would probably benefit me, but I had no idea that it would be so applicable and valuable to all participants. There truly is something for everybody during the week," senior Matthew Black said. The 2021 session was virtual due to the COVID-19 pandemic. Photo courtesy of Nichole Busdieker-Jesse.



Students volunteer in the food packing line at Ozark Food Harvest (OFH) on Friday, Ian. 8. 2021. Matthew Black, a 2021 participant, enjoyed working together with his peers. "I think OFH was a really good way to engage the community and make a local difference." Black said. Photo courtesy of Nichole Busdieker-Jesse.

These conversations mean just as much to students who are preparing to go into the workforce as the industry leaders that are going to meet them there.

"The feedback we get from these companies are that the questions students ask allow them to reflect on what type of workforce is about to enter the agriculture industry," Rimal said.

Not only does this course give students access to industry leaders, they see the the real world through the lens of peers who are in the same boat, and in this case, that boat is called a cohort. The study breaks up students into cohorts that travel to and from these businesses which then breaks up opportunities to ask questions for insight.

"Everyone has different experiences, and when we had the chance to ask these businesses questions, hearing responses from others in my cohort about [their experience] and listening to their perspectives gives the study a whole new outlook," Benne said.

This outlook helps students beyond graduation. One of the best parts about the week is how students can learn and change their feelings about the program and their future career in such a short amount of time.

"You can see it on their faces," Busdieker-Jesse said. "On Monday, they are nervous and don't really know what to expect, they don't know to be excited about it yet, then on Wednesday they are eager and excited. By Friday, they are

exhausted but energized from the week of learning all about these different opportunities."

Not only does the Ag Industry Study allow students to learn and ask questions, it also allows them to get outside of a school schedule and into the real world.

"The most difficult part of the week was the tight schedule. It was hard to stay motivated during the trip because of how we were always on the go," Benne said.

For graduating students like Benne, this hard change of pace was needed before entering the workforce. Not only did just physically being out in the industries make it feel real but having to change schedules was a trial run for what students will face after taking this course.

"To have a leg up in the industry you must show initiative and take your career into your own hands and be a go getter," Benne said. "This course made us all do that and looking back it was one of the reasons I am so thankful for it."

Navigating the 'New Normal'

This go getter attitude is something that was needed by industry leaders, students, professors and the agriculture industry alike during 2020. After Benne took the class in January of 2020, COVID-19 hit and the "new normal" was redefined. For AIS, trying to define the new normal was no less challenging than challenges faced by industry leaders.

"When COVID-19 first hit we tried to do a summer session but learned quickly that there were too many new parts that the whole world was trying to figure out let alone how to run this class," Busdieker-Jesse said. "The winter session of 2021 was easier to evolve because we knew what some of the challenges would be with having a virtual presentation with in-person student participation."

Matthew Black, a senior agriculture business major, was a part of the AIS 2021 session and learned how to adapt in the classroom and the workforce. One of his big takeaways from the week was learning how to be challenged and find the hidden positives when things go differently than expected.

"I do much better in a face-to-face conversation, but that was really difficult with the current situation. I feel that I'm a more active listener and more engaged in-person as compared to Zoom. It did offer us the chance to visit with upper level management that would typically be unavailable, but could find 20-30 minutes for Zoom," Black said.

The 2021 AIS was still a week long study of different industries brought to students remotely with the same mission.

"This year was unique and we tried to overcome it in the only way we knew, virtually," Rimal said. "We aligned all the speakers from Kansas City that we normally get to visit and hosted the students at the Bond Center, while our industry leaders Zoomed with us."

Even though this year looked different, it allowed the study to dig deeper into the Missouri State Pillars: cultural competence, community engagement and ethical leadership. This course has always been founded on those, but COVID-19 allowed students to gain hands-on experience in the Springfield community.

"We have always tried to incorporate Missouri State's pillars, but have never really been able to give back to our community," Bushdieker-Jesse said. "Through Food Security (another course Busdieker-Iesse teaches) I've learned a lot about Ozark Food Harvest and thought what better time than now to get involved with such an important organization."

Students spent the last day of the session volunteering at OFH, the largest food bank distribution center in the southwest region of the state of Missouri. The group was divided into three groups and given three different tasks: egg sorting, backpack packing for their After School Program and food sorting. After volunteering, the students heard from OFH leaders about their role in the agriculture industry.

"I think OFH was a really good

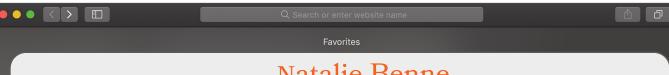
way to engage the community and make a local difference. I have a different perspective in the fact that I have logged nearly 80 hours of community service in college. I still think it is very important and to quote the FFA creed, 'less need for charity and more of it when needed"." Black said.

This need was overwhelming as OFH had to change their operations just like the AIS. In March of 2020, OFH had to cancel their volunteer program, which runs their entire operation. As the need for food assistance skyrocketed during COVID-19, the availability for large groups like the AIS diminished.

"The OFH warehouse was large enough to safely host all of us and allow us to get out of the classroom and into the real world," Busdieker-Jesse said. "Afterwards the students were so grateful for the opportunity to volunteer; it was the highlight of the week."

As Rimal and Busdieker-Jesse look forward to returning to traveling and the normal AIS, they both hope some of the things they have learned due to COVID-19 won't change.

"I would love to continue to use our pillar of community engagement as a guiding light for the future of this study, not only is it important to us but to the agriculture industry as a whole," Busdieker-Jesse said. "No matter what our new normal will look like for the future of the AIS, we are eager to still provide students with a connection to the real world and real leaders in agriculture."





Natalie Benne

As an agribusiness minor, Natalie traveled with the winter 2020 session to St. Louis, Missouri to hear from industry leaders about the different career possibilities she could have with her minor. Now, as a graduate student at MSU, she's taking what she learned from her trip and applying that into the real world.

"The biggest takeaway in my opinion comes from the influencers in the industry. I noticed that a reoccuring theme presenters would talk about was how you have to take chances. To have a leg up in the industry you must show initiative and take your career into your own hands. Now, as a graduate assistant, I would say that looking back I am thankful for the experience

because it gave me a broader outlook of different agricultural areas and careers. I had the opportunity to see what my life might look like if I went into a finance career versus an agricultural communications direction. I wish that in other courses we got to dive into career opportunities. It is hard to know what life is like post-grad and this trip gave me that opportunity," Benne said.



Plant-based protein and agriculture have been forced to form a relationship in the agricultural industry

By: Taylor Allee

The word "protein alternative" has almost become synonymous with the word tofu. Tofu has been around since 1965, making it the first plant-based protein to be recognized as an alternative to meat. If meat alternatives have been around since the 60's, why do we still have disagreements over them? The disagreement begins with how plant-based protein is viewed by consumers versus those in the agriculture industry. The connotation of the word "versus" demonstrates pitting two subjects against each other; for plantbased protein and beef protein complement each other.

REASONS FOR PLANT-BASED PROTEIN

The need for plant-based proteins is one that should be analyzed and understood by all consumers, no matter their background. There are multiple reasons why consumers choose plant-based protein over traditional beef. These include religious beliefs, health restrictions and personal preferences. In some cultures, the consumption of meat or a specific type of meat is forbidden. For other consumers they have problems with digesting meat or are allergic to it.

Personal preferences are the largest contributing factor to not eating meat. Animal welfare and

environmental health are significant areas in relation to personal preferences. Many consumers do not like the way animals are raised or slaughtered. The belief that animals are raised strictly for their slaughter is a heavy hitter when it comes to welfare. Consumers may see one bad image or video that solidifies this thought for them. Others are worried about the environmental effects that come with raising animals, greenhouse gasses and waste management.

"If we looked into it, we would find that many acres of land that cattle graze on is not suitable for plant-based protein production. If we phased out the entire population of livestock, there would not be enough acres to grow enough plantbased proteins to meet the protein needs of people in our country," stated Mark Russell, Executive Director of the MO Beef Industry Council.

Creating a meatless protein ensures all people are able to get the amount of protein they need in their diet. A person's reason to not eat meat is all their own, however their nutritional need for protein still needs to be met.

NUTRITIONAL INFORMATION

According to Beef It's What's For Dinner, the amount of protein and nutrients that come from meat, beef specifically, cannot be replaced by another source of protein. Other proteins that are created to resemble beef are lacking in an area of protein or nutrients when compared to beef.

"Plant-based protein is a protein source for someone who needs a different source of protein in their diet or ethically doesn't want to eat meat," said dietetics major Elizabeth Knipp. "It would be an alternative; however, they're definitely not equal substitutions."

Many plant-based alternatives have been made to be comparable to beef protein, but two have surged in popularity; the Impossible Burger and the Beyond Burger. The Impossible Burger is a plantbased patty made with a soy base and nutrition additives. The Beyond Burger has a rice, pea and mung bean base. Not using soy protein makes the Beyond Burger marketable to soy-free consumers. The processing of the two protein alternatives takes place in a lab. where nutrients are added but not enough. There are many naturally forming vitamins and nutrients in traditional beef that cannot be found in plants. Vitamin B12, zinc and iron are three nutrients that are large contributor vitamins in beef. The plant-based patty would need

these nutrients and others added into the patty to create a competitive level of nutrition. However, even with additives the alternative would still not be considered an equal substitution. Although the alternative proteins have a plant base, they are not healthier than beef.

"If someone is a vegetarian or vegan, the plant-based protein is very doable, but it is definitely harder to get the iron that they're needing. It would have to be individually based on lab levels, but I would probably say in general, yes you would need some sort of iron in addition to the plant-based protein. The level of the nutrient is not going to be the same," Knipp stated

When you place the two nutrition labels side by side there are notable similarities and differences. At first glance, the most obvious difference is the length in the nutrition labels. The plant-based patty's list is significantly longer than the beef patty's list. There are more added vitamins and minerals to the plantbased patty's list. In the plant-based protein, the sodium value is 370 mg versus the beef sodium value of 65 mg. This is a compelling difference between the two patty's nutritional content. The plant-based patty also had higher values in fats, carbohydrates, fiber and sugar. Overall this information shows that the plant-based patty is not more nutritional than the beef patty.

COMMERCIAL EXPANSION

This new wave of plant-based proteins has expanded its reach into restaurants and grocery stores nationwide. The Beyond Burger created by Beyond Meat, can be found in restaurants and fast food chains such as Carl's Jr, TGI Fridays, A & W and Dunkin' Donuts. The Beyond Burger can also be purchased and shipped to the consumer through the Beyond Meat retail website. As for

the Impossible Burger produced by Impossible Foods, it can be located in other restaurant chains. Examples include: Burger King, Red Robin, White Castle and Hard Rock Cafe. The Impossible Burger can also be bought and shipped through its retail website. Both of these plant-based proteins are sold by Target, Walmart, Safeway and other grocery retailers.

"There has always been plantbased protein, in the nineties and early two thousands it was not uncommon. It was a very, very small percent of the market, until the last two years. Companies have started developing multiple products that are plant based, we've seen more visibility than ever before on products that want to emulate beef," Russell stated.

While beef patty simulated plant-based proteins are taking the main focus, there are other plantbased proteins available. Quorn is another plant-based protein that has beef and chicken replacements. This substitute is advertised as a "meatless meat" made from Fusarium venenatum, a member of the fungi family. Although this product is mainly made from fungi it has other additives for flavor and texture. With plant-based proteins on the market, it's important to understand these products as producers and consumers.

"PLANT-BASED PROTEIN IS A PROTEIN SOURCE, FOR SOMEONE WHO NEEDS A DIFFERENT SOURCE OF PROTEIN IN THEIR DIET OR ETHICALLY DOESN'T WANT TO EAT MEAT. IT WOULD BE A DIFFERENT ALTERNATIVE. HOWEVER, THEYRE DENITELY NOT EQUAL SUBSTITUTIONS."

-ELIZABETH KNIPP

RAISING AWARENESS

A recent event held within the Darr College of Agriculture promoted the beef industry and raised awareness for plant based beef substitutes. The MSU Cattlemen's Association joined forces with the MSU Student Dietetic Association to host the event. Members from both clubs participated in a taste test. Russell from the Missouri Beef Industry Council provided the substitute and prepared them on-site at the Bond Learning Center. Afterwards, each student tested the burger substitute they discussed the protein.

"The reason we wanted to hold the event was to bring awareness of how plant-based protein can impact the beef industry. We thought it was important to do it within the College of Agriculture, but also include the dietetics association. It seems the protein is marketed for its nutrition and we wanted to put it to the test," stated MSU Cattlemen's President, CarrieLee Holliday.

Along with trying the plantbased substitute provided by Russell, three participants were randomly selected to try another version of the plantbased protein. They were given the Original Whopper and the Impossible Whopper from Burger King. Both burgers were loaded with condiments and toppings making them harder to distinguish. The participants were asked to try both burgers and determine which one was the plant-based patty. Two of the participants were College of Agriculture students while the other was a dietetics professor at Missouri State. The professor and one of the students were able to identify which patty was plant-based. The other student was unable to tell a difference.

"I had to really think about 58 | Darr Difference it, especially because it had a lot of lettuce, tomato, ketchup and mustard on it. I took all that off, but even then they were very similar. However, I would say the aftertaste is the most noticeable difference," stated participant Kendra Betz.

"I THINK IT DOESNT MATTER
WHETHER YOURE GROWING
SOYBEANS, CORN, CATTLE
OR HOGS, PEOPLE IN THE
AGRICULTURE INDUSTRY DEPEND
ON EACH OTHER."
-MARK RUSSELL

To wrap up the event, the group discussed plant-based protein and its nutritional content. They covered how widespread plant-based protein was becoming over social media. The protein's main marketing tool is through social media. The dietetics association in partnership with Russell examined the nutritional facts between plant-based protein and traditional beef.

"In my mind when you pair the patty with condiments for a person to eat, you do not get a lot of discernible differences. However, there are significant differences in the makeup of the burger, especially when it comes to sodium and the highly processed ingredients," Russell said.

As an industry, agriculture gets a large amount of negative attention from the general public and outside industries. It's been important for producers in the industry to stick together and stand up for one another. Though plant-based proteins are a different sector of the agriculture industry, the various plants used as bases for plant-based burgers are grown by farmers.

"I think it doesn't matter whether you're growing soybeans, corn, cattle or hogs, people in the agriculture industry depend on each other," Russell said.

It is important for people in the agriculture industry to understand the relationship created between plant-based proteins and traditional animal proteins. Both plants and animals are grown and raised by producers that care for their career. The most important job of them all, feeding the world's people.

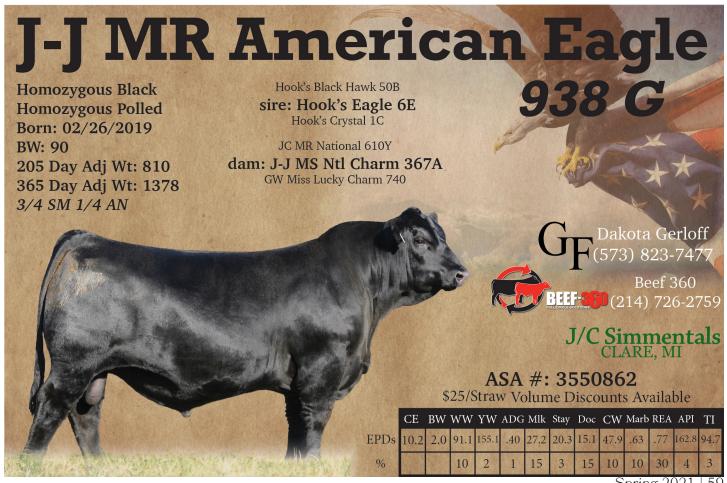
Pictured is the group of participants who attended the MSU Cattlemens test event. The participants taste tested a plant-based patty. Photo courtesy of Mike Klem.





Call to make reservations today

(417) 886-5466





Missouri State University
Darr College of Agriculture
901 S. National Ave.
Springfield, Missouri 65897
ag.missouristate.edu
417-836-5638

NONPROFIT ORG. U.S. POSTAGE PAID SPRINGFIELD, MO PERMIT NO. 1585

Agricultural Communications

Develop your professional communication skills while blending your passion for the agriculture industry with a degree in agricultural communications.

Courses Offered:

Introduction to Agricultural Communications
News Writing in Agriculture
Event Communications for Agricultural Organizations
Feature Writing for Agricultural Publications
Media in Agriculture
Layout & Design for Agricultural Publications
Agricultural Photography
Public Relations in Agriculture
Capstone in Agricultural Communications