

Food Science Scoops

Department Edition



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This newsletter is prepared by faculty of the Department of Food Science at the University of Arkansas System Division of Agriculture. If you have ideas for stories or individuals to highlight, news or photos to share, or would like to be added to the circulation list, please email Jennifer Acuff (jcacuff@uark.edu).

Recent Events



Apple Butter

The Food Science Club put on another successful year of apple butter production! Students, staff, faculty, and alumni volunteered to help with this longstanding tradition.



Halloween Party

The Food Science Club organized Halloween festivities with movies, costumes, and pumpkin carving. The party had a great turnout with lots of Halloween spirit!



Joint Conference

The Food Science Dept. hosted faculty from University of Parma to present research and explore future collaborations. They also toured some of the best that NWA has to offer!

FDSC Alumni Highlight

Morgan Denzer, Ph.D.

Dr. Morgan Denzer, an instructor in the Department of Food Science at the University of Arkansas, combines practical agriculture experience with academic expertise. Growing up on a hobby livestock farm, she developed a passion for agriculture and food production, influenced by her parents—a small animal veterinarian and a trucking industry professional. Her interest in food science began in high school through a biotechnology course, leading her to pursue a Food Science degree at Iowa State University and graduate research in meat color chemistry and muscle biochemistry at Oklahoma State University.

At the University of Arkansas, Denzer connects classroom instruction with real-world applications through innovative industry partnerships. She revamped the capstone course, Product Innovation for the Food Scientist, in collaboration with Simmons Foods. Students work on semester-long projects based on real industry briefs, guided by Simmons professionals. This hands-on experience spans microbiology, sensory science, food law, and more, equipping students with technical skills and professional development. Support from Newly Weds Foods further enriches the course by exploring the relationship between prepared foods and ingredient development. Denzer views these partnerships as essential for fostering product innovation and bridging the gap between academia and industry. “The mentorship from Simmons Foods not only helps students develop essential technical skills but also hones their professional abilities, both of which are critical for success in the industry,” she says.

Denzer also addresses emerging trends, such as clean labeling, minimally processed foods, and advancements in natural ingredient alternatives. Passionate about integrating artificial intelligence (AI) into food production and education, she emphasizes ethical considerations and best practices. “It is essential to expand our students' knowledge of these alternatives and equip them with the skills to effectively implement new technologies and ingredients in the industry,” she explains. Through her work, Denzer fosters innovation while promoting sustainability and health in food systems. By encouraging students to engage with emerging trends and meaningful research, she prepares them to lead the future of food science.



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Morgan Denzer, Ph.D.
Dept. of Food Science, Instructor

FOOD SCIENCE

Fun Fact

Why is meat red?

Do you know what makes a steak appear bright, cherry red?

Meat color is caused by a natural protein present in muscle called myoglobin. We have myoglobin in our muscles, and you may have heard of another protein called hemoglobin in our blood. Hemoglobin transports oxygen through our blood to our muscles where myoglobin stores oxygen and provide oxygen to muscle cells. So how does myoglobin relate to meat color? See [Dr. Denzer's video](#) to learn more about what makes meat such a bright red color.





FDSC Alumni Highlight

Andrea Dunigan, M.S.

“DR. JUSTIN MORRIS INFLUENCED MY LIFE BOTH PERSONALLY AND PROFESSIONALLY. I WANT EVERY STUDENT TO EXPERIENCE THE SUPPORT AND RELATIONSHIPS I HAD.”

Andrea Dunigan, Talent Development Manager for Food Safety and Regulatory Affairs at ConAgra, has built an impressive career in food science and manufacturing, rooted in her time at the University of Arkansas. Her journey into food science began unexpectedly. Initially planning to major in Biology, Dunigan was swayed by the University’s Beginning Scholar’s Program and a persuasive visit from Dean Hardy, who highlighted the abundant opportunities in food science. “He told me there were 12 jobs for every graduate. I switched, and the rest is history,” Dunigan recalls.

During her master’s studies, Dunigan worked under Dr. Justin Morris, bottling and carbonating grape juice blends. However, a mishap involving residual yeast transformed her research into an unexpected lesson—if bottles aren’t cleaned properly, the yeast could cause the bottles to blow up or make unexpected wine coolers! This lighthearted memory underscores the hands-on learning that defined her time in the Food Science Department.

Dunigan’s current role at ConAgra blends her food science expertise with her passion for people. Tasked with recruiting and talent development, she draws on years of manufacturing experience to shape the next generation of food safety leaders. “Senior Leadership felt my background would bring a different perspective to Talent Development,” she explains. Her efforts have bolstered ConAgra’s presence at the University of Arkansas, recruiting numerous talented food science graduates.

Recently appointed Chair of the University of Arkansas Food Science Academic Advisory Board, Dunigan is deeply committed to giving back. “Dr. Justin Morris influenced my life both personally and professionally. I want every student to experience the support and relationships I had,” she says. For Dunigan, the University of Arkansas was more than an education—it was the foundation of a rewarding career and a lifelong connection to food science innovation. In her role now, she wants to continue that tradition of mentorship and career building. She stated, “After Covid, we have seen a high turn-over rate in employees in our plants. I have supported plants and worked in plants almost my entire career and know how difficult this work is and how important engagement, retention, and diversity are to our company. I encouraged ConAgra to recruit at the University of Arkansas and especially in the Food Science Department. Over the years our recruiting presence has grown at the U of A and now it is a major University for us.”

FDSC Student Highlight

Amanda Stuber ('24)



Amanda Stuber, an undergraduate student graduating in December 2024, has intentionally enriched her academic and professional journey through impactful experiences in food science. A highlight for Stuber was participating in the College Bowl competition at IFT FIRST. Although the competition didn't go as planned, she recalls, "I loved exploring my first-ever expo, talking with brands, and learning about new trends and products I might get to work with in my career." Her internship with Newly Weds Foods offered further insights, particularly in the ingredients sector. "I feel so grateful for the opportunity to work on projects that can have an impact in so many different capacities," she shares. These experiences have solidified her passion for contributing to the industry.

Stuber is deeply motivated by the potential of food science to address global challenges, especially in ensuring food security. "I just want to feed as many people as possible in my career, and I feel that food science gives me that opportunity," she explains. Her advice to fellow students is to embrace challenges. "No growth happens in a vacuum, and you can reap significant rewards by pushing yourself," she emphasizes. Looking ahead, Stuber hopes to leverage her skills to foster innovation and make a meaningful impact in the food industry.

Walker Bartz ('24)



Walker Bartz, a second-year master's student in Food Science at the University of Arkansas, has transformed a lifelong curiosity about food into a rewarding academic and professional journey. Bartz's passion for food science began with a childhood fascination for analyzing nutrition labels and grew through research opportunities during his undergraduate years at Clemson University. In the U of A department, he notes that one of the best things is the diversity of research topics and collaborations. "The professors are willing to share their research, and I've gained knowledge in diverse areas like starch chemistry, brewing, and food engineering."

One of Bartz's most impactful experiences was presenting his research at the 2024 American Society of Enology and Viticulture conference. "Getting to share my findings with a room of 150 people and receiving industry feedback was incredible," he recalls. Bartz is passionate about addressing industry challenges, such as food packaging regulations and consumer education. "Regulatory changes such as the removal of Bisphenol A linings and expanded producer responsibility laws will have a major impact on packaging/food compatibility that should be handled very delicately," he explains. "We can make the best food products, but if the packaging materials are not available due legislation that has been passed, off flavors and leaching can occur." His advice to other students is to keep engaging, even with delicate topics. "Stay curious. Food science is incredibly broad, and understanding other fields will make you a better food scientist."