

2026 Annual Report

Reflecting activities from July 1, 2025 - June 30, 2026



WELCOME TO OUR FISCAL YEAR 2026 ANNUAL REPORT

Harnessing research and development for Wisconsin's dairy community.

Above: Mitchell Armstrong (center), a PhD student in food science at UW-Madison, speaks during the student panel at the Dairy Innovation Hub's 2025 Dairy Summit at UW–River Falls. Photo Pat Deninger/ UW–River Falls

On the cover: Badger Dairy Camp campers Ryker Johnson, left, and Axel Melin, right, pose with Bucky Badger and a heifer after a dairy judging and linear evaluations activity in the Stock Pavilion at UW–Madison. The camp was made possible by a grant from the Dairy Innovation Hub and other sponsorships. See story on p. 26. Photo by Michael P. King/UW–Madison CALS

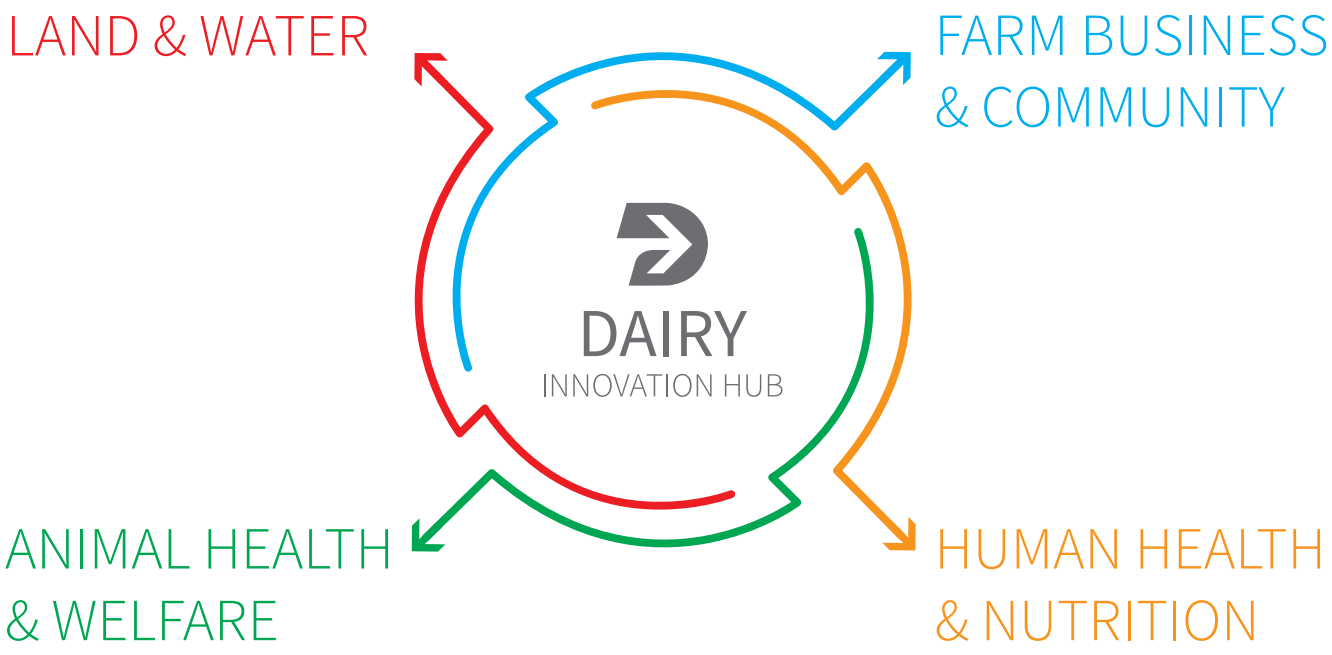
Back cover: Zifan Wan, a Hub faculty member at UW–Platteville, speaks about her cold plasma research during the Dairy Summit at UW–River Falls. Photo by Pat Deninger/UW–River Falls.

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Scan QR code to access the fully searchable "Project Showcase" database with information on all 300+ Hub-funded awards to date!

FOUR KEY PRIORITY AREAS



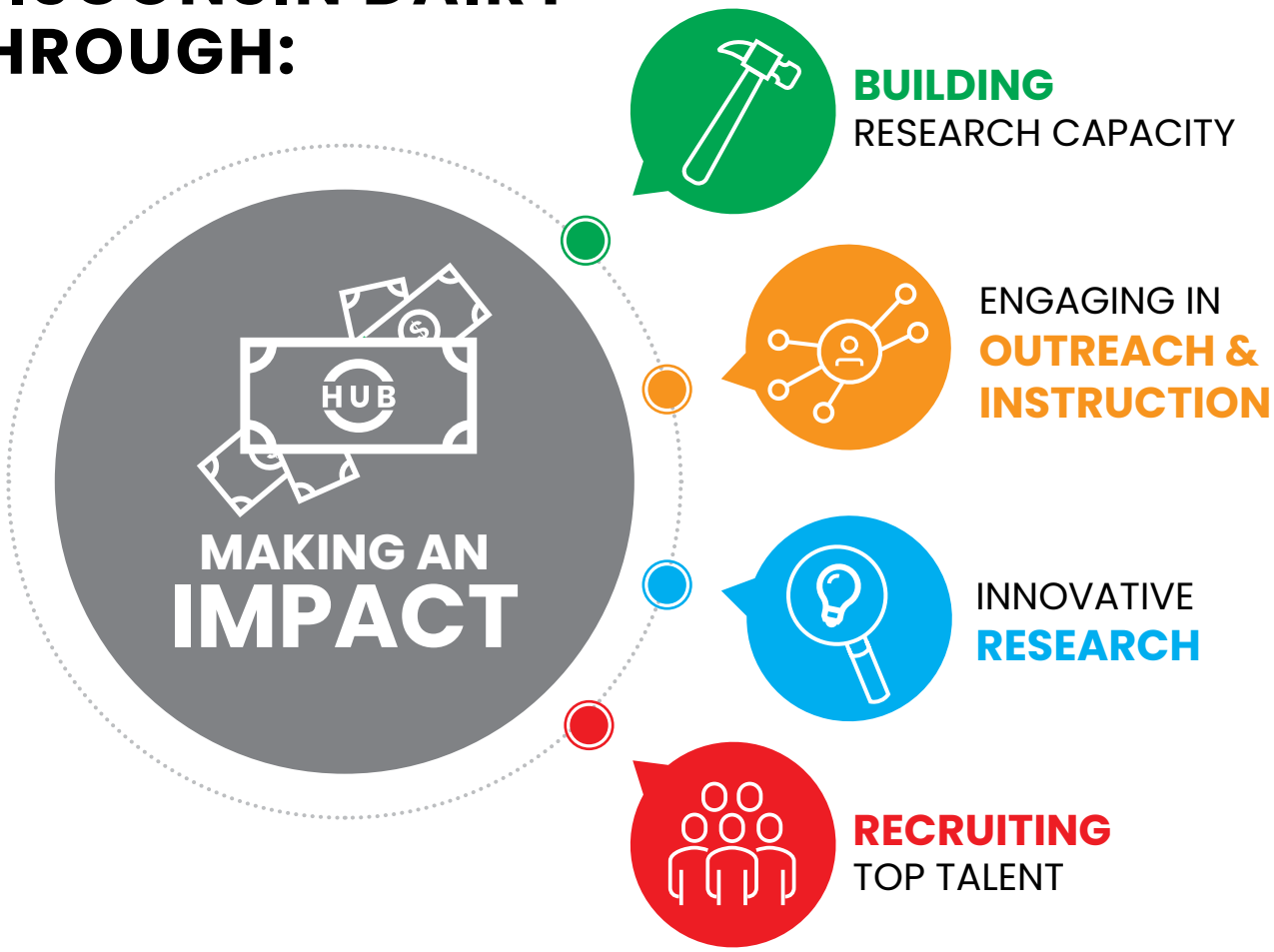
Stewarding land and water resources
Improve nutrient management and soil health; reduce greenhouse gas emissions, improve air quality; develop alternative uses and markets for manure; investigate novel cropping systems; and minimize nutrient losses to lakes and rivers.

Enriching human health and nutrition
Develop value-added products to serve health needs and dietary trends; design food processing, packaging and delivery technologies to improve product quality and shelf-life; improve the safety of dairy foods; understand and address barriers and facilitators to dairy consumption.

Ensuring animal health and welfare
Develop data analytics for animal management; reduce metabolic disorders and infectious diseases; improve stress biology and immune function to support animal health and productivity; improve efficiency and sustainability; deploy genomic selection and other technologies for healthy animals.

Growing farm businesses and communities
Improve profitability and growth opportunities for businesses throughout the dairy economy and promote informed decision-making by consumers and policymakers; use big data to optimize dairy farms; develop skilled & tech-savvy rural workforce; improve financial literacy & return on assets.

HUB DOLLARS IMPACT WISCONSIN DAIRY THROUGH:



Why invest in research and training?

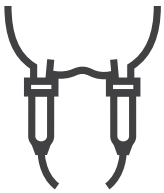
- Develops tools and technologies to produce more milk with less cows, land and water
- Enhances animal care and builds trust in dairy products
- Ensures a safe, abundant, and nutritious food supply for all people
- Prepares the next generation of Wisconsin dairy leaders and professionals
- Creates new opportunities for dairy products and markets
- Keeps Wisconsin dairy farms and businesses nationally competitive and rural communities strong

WISCONSIN DAIRY STATS

4,944
DAIRY FARMS
(as of Oct. 1, 2026)



more farms than
any other state



33
BILLION
pounds of milk
produced annually

1,273,000
COWS



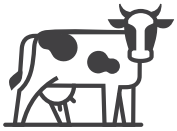
That's almost half as many as 1950!



121K JOBS

in Wisconsin are dairy farming
or processing related

EVERY



IN WISCONSIN GENERATES

$41,500

in economic activity per year.



1ST NATIONALLY
in cheese production



2ND NATIONALLY
in milk production



$52.8

BILLION

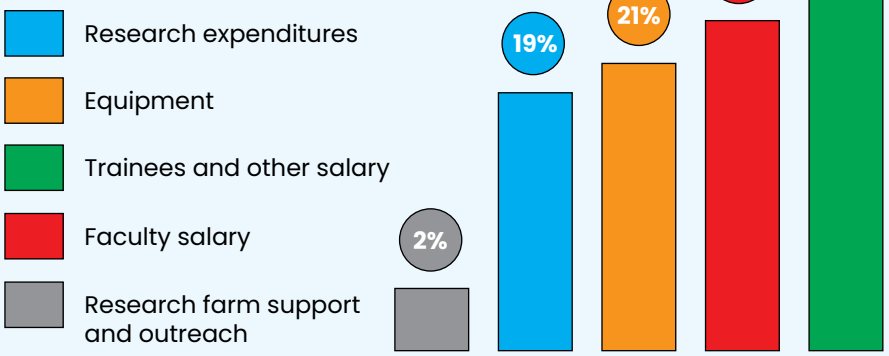
in economic activity to the state of Wisconsin

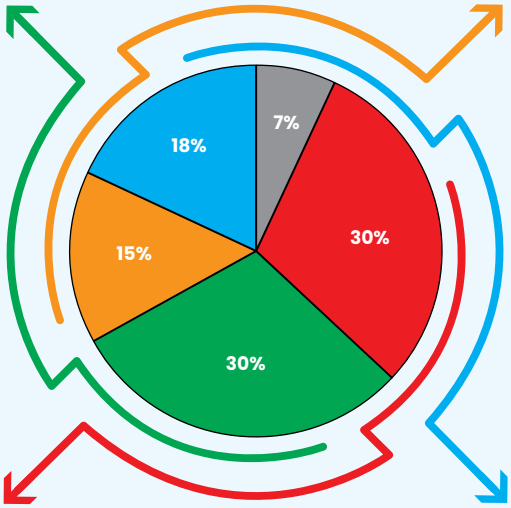
Sources: USDA NASS and Contribution of Agriculture to the Wisconsin Economy: An update for 2022 by Steven Deller & Jeffrey Hadacheck, UW-Madison.

FINANCIAL OVERVIEW

Fiscal Year 26: July 1, 2025 - June 30, 2026

By expense type





By priority area

- Farm business and community
- Human health and nutrition
- Animal health and welfare
- Land and water
- Administrative

FY 26 projections from the approved spending plan mirror, almost exactly, actual expenses for the year. Funding was approved in October 2019, and the initial investments of $1M in FY 20 and $7.8M per year thereafter have seeded recruitment of new talent, capacity-building equipment, and research projects in just seven short years.

With more than 300 awards to date, projects are in various stages of progress. Awards often span multiple years and are tracked according to their approved budgets, resulting in partial spending in a given fiscal year. Support is distributed across the Hub's four priority areas leading to maximum impact for the dairy community.

FY 26 FINANCIAL HIGHLIGHTS:

Nearly **$4M** for faculty, trainees and staff **NEW DAIRY TALENT**

Total **$7.8M** **FUNDS ALLOCATED** for dairy initiatives



Carolina Pinzón's (left) Hub-funded project developed practical, bilingual tools to help dairy managers teach proper milking practices, mastitis prevention and udder health to farm employees. Photo contributed

ACCOMPLISHMENTS

More than **300**
PROJECTS FUNDED
across **3** campuses and **4** priority areas since 2020

24 Total
FACULTY SEARCHES
attracting top talent to Wisconsin

$7M
LEVERAGED GRANT FUNDS FROM FY 26

212
JOURNAL ARTICLES, ABSTRACTS, OR POSTERS
accepted or published in FY 26

307
STUDENTS
and trainees engaged in FY 26 Hub research & infrastructure

198
PRESENTATIONS
to live audiences in FY 26

OUR LEADERSHIP



Troy Runge

Interim Dean, College of Agricultural and Life Sciences, UW–Madison

2025-2026 was another active year for the Dairy Innovation Hub. On the Madison campus, the Hub funded 14 new projects and engaged 217 students and trainees.

While the Hub continues to provide vital funding to explore research questions critical to the dairy community, some of my favorite activities are those that bring together UW scientists (including student scientists), policymakers, farmers, and consumers. Once again, the Hub hosted several of these valuable educational activities throughout the state, and UW–Madison was proud to participate in these events.

Nine of our faculty/student teams, along with colleagues from the other two campuses, presented their research results at the Hub's annual research poster session at the Wisconsin State Capitol.

Faculty director Matt Ruark spoke to the students enrolled in UW–River Fall's Farm and Industry Short Course program who participated in the AgForward program on our campus.

Four faculty/student teams from UW–Madison presented Hub-funded research at the Professional Dairy Producers business conference.

We were also honored to welcomed Sarah Hagenow, the 78th Alice in Dairyland, to our campus to see our dairy research and education in action. It is inspiring to see the strong, ongoing partnership between dairy farmers, dairy processors, and students and faculty at UW–Madison as they continue to work together to keep Wisconsin dairy strong.



Troy Runge, now interim dean and then associate dean for research and extension in the College of Agricultural and Life Sciences at UW–Madison, helps moderate a question from Tom Crave, a dairy farmer from Waterloo, Wis., at the 2024 Dairy Summit hosted by UW–Madison. Photo by Nguyen Tran/Dairy Innovation Hub.



Carolyn Keller

Dean, College of Business, Industry, Life Science and Agriculture, UW–Platteville

Part of our work that is strengthened through the Dairy Innovation Hub is our capacity to recruit and train the next generation of dairy experts. This has been highlighted in our efforts throughout this year. In January, UW–Platteville hosted the Midwest ADSA-USD conference welcoming groups from throughout the Midwest (and even a team from California!). Students were exposed to a variety of Hub research at Pioneer Farm and visited local farmers.

We also had the opportunity to update our robotic milking viewing area this year into an imressive educational facility highlighting research from Hub faculty and staff, and the additional ability to highlight recent data collection and findings from scholars across the School of Agriculture. Pioneer Farm has always been an open space but now the work we conduct is on display for visitors of all ages to learn more about the Hub and the School of Agriculture. This renovation was completed just in time to host the Lafayette County Dairy Breakfast which was a wonderful way to celebrate our local community.

Finally, our Hub faculty, staff, and fellows are always incorporating undergraduate students into their efforts in their classrooms, in their advising and support of academic clubs. Zifan Wan advised a Dairy Product Evaluation Team, Lucie Kadjo and Kelvin Amon took students to the National Agri-Marketing Association Conference in St. Louis, and Joseph Sanford is involving undergraduates in Freshwater Collaborative work looking at the intersections of agriculture and water systems.



Michael Orth

Dean, College of Agriculture, Food and Environmental Sciences, UW–River Falls

This has been an eventful year for the Dairy Innovation Hub group at UW–River Falls! In November we hosted the Dairy Summit. We kicked off the Summit the night before with an invited presentation by alumni David Lenzmeier, CEO of Actus Nutrition. The day of the Summit was a great event with many faculty describing their research efforts. One of the biggest successes was the student panel, where students who were involved in Hub research got to share their experiences. One of the additional benefits of the Hub is that it facilitates the training of future dairy leaders. In the afternoon, attendees toured the dairy plant, the meat laboratory, and experience captive bolt stunning for livestock by the Humane Handling Institute.

The university recently opened a new state of the art science and technology building. With departments moving into that building it opened up new space for our college. This has allowed us to establish some new Hub related research space which will help our current and future faculty to conduct their work in more dedicated spaces.

One of our Hub faculty, Grace Lewis, who focuses on dairy products, was a recipient of the American Dairy Science Association Foundation Early Career Award: Dairy Foods at the ADSA national meeting in Milwaukee. This is a high honor and shows the impact that Hub can have on helping faculty initiate a successful academic career.

OUR PARTNERS



Chad Zuleger

Executive Director | Dairy Business Association

"Continued advancement and lifelong learning are crucial for the dairy sector to ensure that Wisconsin remains a leading force in dairy for generations to come. The Dairy Innovation Hub helps drive progress by uniting research and farmers to address the current challenges and opportunities within our industry."



Shelly Mayer

Executive Director | Professional Dairy Producers

"The UW Dairy Innovation Hub is more than a research initiative. It's an investment in the future of Wisconsin dairy. By bringing together world-class researchers, students and leaders, the Hub accelerates practical innovations that improve farm profitability, strengthen environmental stewardship and prepare the next generation of dairy leaders. The discoveries made today through the Dairy Innovation Hub will have a lasting impact on our farms, rural communities, and the state's economy for decades to come."



Randy Romanski
Secretary | Wisconsin Department of Agriculture, Trade and Consumer Protection

"When I speak to my colleagues across the country, I am proud to highlight Wisconsin's annual investment in the Dairy Innovation Hub. This state recognizes the significance of the dairy industry to the state's heritage, economy, and future. Leading research in land and water resources, animal and human health, and business and community development will ensure Wisconsin remains America's Dairyland and the World's Dairyland for years to come."



Brad Olson
President | Wisconsin Farm Bureau Federation

"The Dairy Innovation Hub continues to strengthen Wisconsin's position as the global dairy leader by connecting farmers with cutting-edge research and real-world solutions. Through strong collaboration across our agricultural universities, the Hub supports the entire dairy supply chain and helps farms and processors stay competitive. This investment in applied research ensures Wisconsin dairy remains resilient, forward-looking and ready to meet the demand for nutritious dairy products."



John Umhoefer
Executive Director | Wisconsin Cheese Makers Association

"The opportunity for strong dairy sales coincides with innovative leaps on the dairy farm, such as growth for dairy protein aligning with farm-side breeding and feeding innovations to boost protein in fresh cow's milk. University research is the key! Human nutrition research proved the unique value of whey proteins in exercise recovery and building muscle mass; a broad body of research produced the cow genetics and nutrition regimens that result in record protein levels in milk. The Hub is exactly positioned to provide the practical research needed to drive this trend and tomorrow's dairy opportunities."

FROM THE DIRECTOR

Maria Woldt
Director | Dairy Innovation Hub

As I reflect on another year of progress for the Dairy Innovation Hub, I am filled with gratitude. Our success is made possible by the many people who believe in this mission: faculty pursuing innovative research, students preparing for careers in dairy, industry partners sharing their experience, legislators who secure investment in the Hub's work, and the farmers and dairy processors whose challenges inspire us every day.

This year was especially meaningful for me personally as I stepped into the role of director. While my new role officially began on June 1, my connection to the Hub began long before that. I joined the Hub as its inaugural program manager in 2020 and have had a front-row seat to its growth from the very beginning. Even before the Hub was established, I worked for the Dairy Business Association, where I was involved in advocating for the legislation that ultimately created the Hub. Watching that vision become a statewide initiative supporting research, education, and outreach has been one of the most rewarding experiences of my career.

One of my primary goals since assuming the director role is to thoughtfully guide the Hub through this leadership transition. The change positioned the Hub for long-term success, and it also required care and collaboration. My focus is on preserving the elements that were working well, while addressing opportunities for growth and improvement. I am proud of how the transition has gone so far and fully recognize that we are just getting started. The success of this transition was also made possible by Elisabeth Berndt, the Hub's administrative specialist. Elisabeth has been an invaluable member of our team for nearly five years, providing day-to-day support that keeps the Hub running efficiently and allows our faculty, students, and partners to focus on creating impact.

Looking ahead, I believe the Hub's greatest potential is still in front of us. The visionary leaders who established the Hub got it right when they identified four priority areas to guide our work: ensuring animal health and welfare, enhancing human health and nutrition, stewarding land and water resources, and growing farm businesses and communities. As the dairy sector continues to evolve, new challenges and research questions will emerge across each of these areas.

Our role is to harness the research expertise and innovation of UW–Madison, UW–Platteville and UW–River Falls to help keep Wisconsin's $52.8 billion dairy sector at the global forefront of producing nutritious dairy products in ways that are economically, environmentally and socially sustainable. By strengthening collaboration across our three universities and throughout the dairy supply chain, we can continue delivering meaningful benefits for Wisconsin while ensuring our research remains responsive to the needs of farmers and dairy processors.

Thank you for your continued support of the Dairy Innovation Hub. It is an honor to serve Wisconsin's dairy community. Together, we are building on a strong foundation and creating a future where Wisconsin remains the global dairy leader for generations to come. I am excited for what lies ahead and grateful to be part of this important work.





Together, we are building on a strong foundation and creating a future where Wisconsin remains the global dairy leader for generations to come

ADVISORY COUNCIL



"As the Dairy Innovation Hub enters its seventh year, it continues to strengthen Wisconsin's dairy future by attracting outstanding faculty, staff, and students to our three universities. These investments are building research capacity across a wide range of priorities, from farm profitability and environmental stewardship to human health and dairy product innovation. The Hub is helping develop the next generation of leaders and ideas that will benefit Wisconsin dairy for years to come."

Dave Daniels
Mighty Grand Dairy | Wisconsin Farm Bureau Federation | chairman

COUNCIL MEMBERS:



Mat Bartkowiak
Nelson-Jameson



Jessica Cederquist
UW–Madison



Tom Crave
Crave Brothers Farm
Dairy Business Association



Sierra Howry
UW–River Falls



Heidi Johnson

UW–Madison
Division of Extension
(ex officio)



Jimena Laporta

UW–Madison



Shelly Mayer

Professional Dairy Producers



Tera Montgomery

UW–Platteville



Scott Rankin

UW–Madison



Randy Romanski

Department of Agriculture,
Trade & Consumer
Protection



John Umhoefer

Wisconsin Cheese
Makers Association



Maria Woldt

director (ex officio)

CAMPUS UPDATES

UW–Madison FY 26 accomplishments:

- Awarded funding for six new trainees. Provided ongoing funding for third postdoctoral fellowship cohort
- Recruited a new assistant professor in the area of agricultural and applied economics with a focus on dairy economics
- Provided ongoing funding for six graduate student fellowships selected in FY 25
- Awarded funding for seven one-year, short-term, high-impact projects that provide timely outputs addressing pressing issues, concerns and needs in Wisconsin's dairy community

FY 26 Steering committee:



Tessa Conroy
Agricultural and Applied Economics



Paul Fricke
Animal and Dairy Sciences



Sara Gragg
Animal and Dairy Sciences



Jingyi Huang
Soil and Environmental Sciences



Margaret Kalcic
Biological Systems Engineering



Jimena Laporta
Animal and Dairy Sciences



Beth Olson
Food and Nutritional Sciences



Matt Ruark
Soil and Environmental Sciences



Heidi Zoerb
CALS External Relations

UW–Platteville FY 26 accomplishments:

- Selected three new awards for faculty research fellowships; Provided ongoing funding for five projects selected in FY 25
- Selected six new awards for supplies and equipment
- Support for graduate student assistantship co-mentored with UW–Madison
- Recruited a new assistant professor in the area of dairy management and applied dairy nutrition
- Onboarded a new assistant professor in the area of agribusiness, entrepreneurship, and community development

FY 26 Steering committee:



Kevin Bernhardt
Agribusiness



Krista Hardyman
Animal, Dairy and Veterinary Sciences



Tera Montgomery
Animal, Dairy and Veterinary Sciences



John Obielodan
Mechanical and Industrial Engineering



Chuck Steiner
Pioneer Farm and Agribusiness

CAMPUS UPDATES (continued)

UW–River Falls FY 26 accomplishments:

- Selected five new awards for faculty research fellowships; Provided ongoing funding for four projects funded in FY 25
- Planning for faculty recruitment in the areas of dairy animal welfare and atmospheric science
- Selected six new awards for supplies and equipment
- Ongoing support for graduate student assistantship co-mentored with UW–Madison
- Collaborative planning for 2025 Dairy Summit, held on the UW–River Falls campus

FY 26 Steering committee



Brenda Boetel
Agricultural Economics



Holly Dolliver
Plant and Earth Science



Sierra Howry
Agricultural Economics



Sylvia Kehoe
Animal and Food Science



Michael Orth
CAFES Dean



Joel Peterson
Agricultural Engineering Technology



Duane Thompson
Mann Valley Farm



Above: UW–River Falls Associate Professor of animal science Arquimides Reyes gives an overview of ongoing beef-dairy cross research at the campus meat plant during a Dairy Summit tour of College of Agriculture, Food and Environmental Sciences facilities on the UW–River Falls campus in River Falls, Wis., Nov. 18, 2025. Photo by Pat Deninger/UW–River Falls

NEW FACULTY PROFILE



Kelvin Amon

Assistant Professor | Dairy Business and Economic Development
UW–Platteville | *start date August 2025*

What is your hometown? I am from Danfa, a border town between the Eastern and Greater Accra regions of Ghana.

What is your educational/professional background, including your previous position?
Before high school, I had a math phobia and would get sick to my stomach whenever math came up. Then I met a group of students who changed my perspective. I became interested in math and found a way to apply it through economics.

After college entrance exams in Ghana, students wait several months for university placement. During that time, I worked as a math tutor for fourth- through sixth-grade students. I enjoyed teaching and watching students grasp new concepts, which sparked a lasting interest in education. At the University of Ghana, I initially studied economics, geography and archaeology before focusing on economics and graduating with a minor in geography.

I later earned a master's degree in agricultural economics from Mississippi State University, and later completed a PhD in food and resource economics at the University of Florida. There, I supported courses ranging from microeconomics and macroeconomics to environmental economics and international trade. My research experience also exposed me to stakeholder engagement and outreach, which became a foundation for conducting impactful research.

How did you get into your field of research?
My experience as both a student and teaching assistant at the University of Ghana exposed me to economic models and raised questions about how they apply to agriculture. That interest led me to pursue graduate studies in agricultural economics. Along the way, I learned about consumer research methods used to understand decision-making and improve outcomes. While these methods have value for farmers and processors, they are not widely used in those settings. I became interested in helping bridge that gap by better understanding the decisions and economic outcomes of agricultural stakeholders.

What are the main goals of your research program?
My research program is grounded in stakeholder impact. I believe research should include an outreach component from the beginning so it can generate practical, testable knowledge. A second goal is to develop teaching materials that help students connect classroom concepts with real-world experiences. Finally, I want research findings to return to stakeholders through outreach programs and educational materials that improve understanding, encourage dialogue and ultimately support livelihoods.

What attracted you to UW–Platteville and the Dairy Innovation Hub?
My first experiences in the United States were in a small college town, and I grew to appreciate the close interaction that environment creates between faculty and students. UW-Platteville provides opportunities to work closely with students, foster interactive

learning and support both academic and professional development.

The Dairy Innovation Hub also appealed to me because of its mission to strengthen Wisconsin dairy through collaboration, innovation and stakeholder engagement. Its statewide partnership across multiple campuses and priority areas aligns closely with my research goals and provides an opportunity to contribute to meaningful outcomes across the dairy value chain.

Do you feel your work relates in any way to the Wisconsin Idea?

I feel my work comes from the Wisconsin Idea. My work is designed to learn about society, develop practical applications and serve society through teaching and stakeholder engagement. These goals fit together like a jigsaw puzzle.

What are your hobbies and other interests?

I like listening to sports and political podcasts, and I enjoy watching and playing soccer. I also like to drive on quiet roads; it is soothing to appreciate nature from an automobile. Hence, I like cars, especially fast cars.



What's one thing you hope students who take a class with you will come away with?

Students who take my class should come away knowing that ignoring knowledge costs more than not knowing at all.

Above: Amon attends the 2025 Dairy Summit at UW–River Falls to network with fellow Hub enthusiasts. Photo by Pat Deninger/UW–River Falls. Below: Amon presents at the 2026 Dairy Symposium event in Madison about his research and the drivers of dairy business growth decisions in Wisconsin. Photo by Nguyen Tran/Dairy Innovation Hub



IN THE FIELD



Summer tour highlights innovation and on-farm research

Members of the Dairy Innovation Hub Advisory Council gathered Aug. 11 at Kinnard Farms in Casco to explore how research, technology and farmer-led innovation intersect. The event brought together faculty from UW–Madison, UW–Platteville and UW–River Falls, along with campus leaders, industry partners, farmers and policymakers. Attendees toured the farm to learn about emerging technologies, conservation efforts and research partnerships supporting Wisconsin's dairy industry.

Founded in 1948 with 80 acres, 14 cows and seven heifers, Kinnard Farms has grown to 9,000 milking cows and is known for its focus on innovation and environmental stewardship. Tour participants learned about the farm's Sedron Technologies Varcor system, which converts manure into concentrated fertilizer products, dry solids and recovered water through separation, drying and nutrient recovery processes. Kinnard Farms is the first dairy farm in Wisconsin and only the third in the nation to install the technology.

Farm owner Lee Kinnard said the investment reflects a long-term goal of reducing reliance on liquid manure application. In northeastern Wisconsin's karst landscape, where shallow soils and fractured bedrock can complicate manure management, technologies that concentrate nutrients and reduce land application offer another management option. The stop prompted discussion about future opportunities to study the technology's economic and environmental impacts and how similar approaches might fit into the state's broader dairy and conservation landscape.

The tour also highlighted farmer-led watershed groups

and on-farm research efforts. Laura Paletta and Abby Augarten of UW–Madison's Division of Extension described how research conducted on working farms is helping address agricultural challenges.

Paletta highlighted Kinnard Farms' woodchip bioreactor, which removes nitrates from tile drainage water, and discussed Wisconsin's Discovery Farms Program, which partners directly with farmers to evaluate conservation practices under real-world conditions. While Kinnard Farms is not a Discovery Farms site, it has participated in regional initiatives including the Door-Kewaunee Demonstration Farms Network and Peninsula Pride Farms.

Augarten highlighted a Dairy Innovation Hub-funded project that advances conservation through farmer-led research. Working with dairy farmers, watershed groups, agricultural advisers and Extension educators, the project helps farmers identify challenges and evaluate solutions through on-farm trials. Current projects focus on nutrient use efficiency, manure management, forage production and cover-cropping systems, with findings shared through field events and farmer-to-farmer learning opportunities.

"The Dairy Innovation Hub supports research that solves challenges facing Wisconsin dairy farms," said Maria Woldt, director of the Dairy Innovation Hub. "Research happens on our campuses and on private farms. Those partnerships help researchers and students test ideas in real-world settings while creating valuable learning opportunities for the next generation of dairy professionals."



The day concluded in the farm's observation room overlooking the rotary milking parlor. Advisory Council Chair Dave Daniels, a dairy farmer from Union Grove, said bringing researchers onto farms remains one of the most valuable aspects of the annual tour.

"Getting researchers out on farms and talking with farmers is how ideas get started," Daniels said. "They get to see challenges and innovations firsthand and make connections that can lead to future research."



Facing page: Tour guests explore a woodchip bioreactor at Kinnard Farms on Aug. 11, 2026 Above: Lee Kinnard discusses how technology and data-driven decision-making support animal care, efficiency, and sustainability goals Left: Cows move through the rotary milking parlor at Kinnard Farms, one of several innovations highlighted during the Dairy Innovation Hub Advisory Council tour in Casco, Wisconsin. Photos by Nguyen Tran/Dairy Innovation Hub

SHORT-TERM HIGH-IMPACT



With help from the Hub, dairy youth camp returns to UW–Madison

A revived summer tradition is helping inspire Wisconsin's next generation of dairy leaders. Through hands-on experiences, campus exploration, and mentorship from industry professionals, Badger Dairy Camp introduced students to the many careers, opportunities, and innovations that power the state's dairy sector.



Above: Campers listen to camp counselor Nick Needham lead a dairy judging and linear evaluations activity. Right: A camp participant manipulates bovine embryos under the microscope during a lab activity. Photos by Michael P. King/UW–Madison CALS

In mid-July, 63 high school and middle school students attended the four-day Badger Dairy Camp on the University of Wisconsin–Madison campus, where they learned about the breadth of areas that contribute to Wisconsin's dairy industry, and the higher education and career opportunities available to them. The programming, for youth ages 12-17, included hands-on workshops and visits to multiple campus labs, the UW School of Veterinary Medicine and a nearby dairy farm – plus college prep sessions and recreational activities.

"One of my favorite sessions was learning about the reproductive tract. That was pretty cool," says Grace Elmhorst, a high school freshman from Granton, Wisconsin whose family runs Romadka View Holsteins. "We got to see the reproductive organs, and one of the cows was pregnant with twins, so we got to see that."

This year's Badger Dairy Camp is a revival – and expansion – of a popular summer program that was last offered 2018. The Covid pandemic waylaid earlier efforts to bring back the camp. Funding to re-launch the camp came from a UW Dairy Innovation Hub grant, as well as contributions from Compeer Financial, Hoard's Dairyman, UW–Madison Department of Animal and Dairy Sciences (ADS) and other sponsors.

"We were thrilled to bring back Badger Dairy Camp and see such a positive response. The feedback we heard at check-out was overwhelmingly positive, with students sharing how much they enjoyed the hands-on experiences, new friendships, and career exploration opportunities," says event co-organizer Eric Ronk, a member of ADS' teaching faculty. "It truly took a village to make this camp a success, and we are grateful to everyone who contributed their time, talents and other support to create such a meaningful experience for these students."

The camp is unique from other dairy youth camps because the programming covers the Hub's four key priority areas: stewarding land and water resources; enriching human health and nutrition; ensuring animal health and welfare; and growing farm business and communities. Campers also participated in more traditional dairy youth activities such as dairy judging and linear evaluation.





"I've done linear evaluation before as part of a 4H judging team, but it's cool to get to learn from the UW's dairy judging coaches and members of the team," says Evan Brey, a rising freshman at Southern Door High School whose family runs Brey Cycle Farm in Sturgeon Bay. "They're obviously a lot more experienced at contests, and the Wisconsin judging team is pretty prestigious – so it's exciting to learn from them."

Campers had the full student experience, staying and dining in a campus residence hall. There were opportunities to interact with peers, current UW students and faculty during recreational activities including volleyball, bowling and a bonfire at campus' scenic Picnic Point. The majority of attendees were members of farm families, but the programming was designed for all interested learners.

"We need to recruit students from both agricultural and nonagricultural backgrounds to sustain the dairy workforce and local communities in Wisconsin," says co-organizer Laura Hernandez, professor of animal and dairy sciences. "That's the long-term goal of this program – to inspire, prepare, and support young people as future leaders in Wisconsin's dairy sector."

"The engagement among camp participants, undergraduate and graduate students, faculty, staff, alumni, and industry professionals was phenomenal," says ADS graduate student Megan Lauber, who led planning and coordination for the camp. "It showcased how strong the dairy community is here in Wisconsin."

Short-term, high-impact grant gives the program a needed boost

The revival of Badger Dairy Camp was supported through a Dairy Innovation Hub short-term, high-impact grant focused on strengthening Wisconsin's future dairy workforce. The project, titled *"Re-establishing dairy youth programming in America's Dairyland to ensure the sustainability of Wisconsin's dairy workforce",* was designed to inspire, prepare, and support young people interested in careers connected to dairy and agriculture.

The Hub's short-term, high-impact grants at UW–Madison support one-year projects that deliver meaningful results for Wisconsin's dairy community on an accelerated timeline. These grants help faculty, staff, and partners develop innovative programs, tools, and educational opportunities that can quickly benefit farmers, students, and industry stakeholders while addressing key challenges facing the dairy sector.

Wisconsin's dairy community depends on a steady pipeline of talented professionals, from animal scientists and veterinarians to food scientists, business managers, and agricultural educators. The grant supports several outreach efforts aimed at increasing awareness of the many educational and

Above: Gulustan Ozturk, assistant professor of food and nutritional sciences, presents at the Center for Dairy Research during Badger Dairy Camp. Facing page: Badger Dairy Camp staff, Laura Hernandez, Megan Lauber, and Eric Ronk, pose for a group photo with Bucky Badger and a heifer in front of the Stock Pavilion. Photos by Michael P. King/UW–Madison CALS



career opportunities available in dairy. In addition to relaunching Badger Dairy Camp, the overall project vision includes regional outreach events and hands-on educational experiences that help young people explore dairy-related careers and build practical skills.

The project is led by Laura Hernandez, professor of animal and dairy sciences at UW–Madison. Hernandez is an internationally recognized researcher whose work focuses on lactation biology, dairy cattle health, and the biological processes that support milk production. Along with her research and teaching responsibilities, she is actively involved in outreach efforts that connect university research with farmers, students, and the public.

The grant team also includes Eric Ronk, a teaching faculty member in the Department of Animal and Dairy Sciences whose work emphasizes student learning, advising and dairy industry engagement. A Wisconsin native who grew up on his family's Century Farm, Ronk brings strong practical experience to his teaching in animal sciences and dairy herd management and serves as a mentor to students pursuing careers in the dairy industry.

PhD candidate Megan Lauber played a key role in planning and coordinating the camp. Her research focuses on dairy cattle reproduction and herd management, and she is passionate about youth development and agricultural education. Before pursuing her graduate studies, Lauber gained extensive hands on experience on her family's farm in Union Grove, Wisconsin, where she managed calf and heifer programs and worked with registered Holsteins. Having been a camper at Badger Dairy Camp, Lauber knew first-hand how influential this experience was to youth interested in dairy. Most recently, Lauber joined Utah State University's Department of Animal, Dairy, and Veterinary Sciences.

Together, the project team is working to create meaningful opportunities that help the next generation discover the many ways they can contribute to Wisconsin's dairy community.

ALUMNI PERSPECTIVE

Jalyssa Beaudry is rooted in dairy and driven by data



Jalyssa Beaudry grew up on a dairy farm in Minnesota and began her journey in agriculture long before she considered graduate school. In May 2025, she earned a master's degree in agricultural and applied economics from University of Wisconsin–Madison, building on undergraduate studies at University of Wisconsin–River Falls. During graduate school, she conducted research supported by the Dairy Innovation Hub, examining the economics of automated milking systems and how management decisions influence milk production and revenue. She now applies those analytical skills in the grain industry, while remaining connected to the dairy community that shaped her career.

Generations of dairy

"I'm the 4th generation to grow up on my family's dairy farm in Otsego, Minnesota. I come from a close-knit family and am the first to graduate from college or pursue a graduate degree," Beaudry says.

Growing up alongside six younger siblings, Beaudry learned the value of hard work and sought out academic opportunities early. During high school, she completed community college courses through a postsecondary enrollment program, allowing her to earn an associate degree and accelerate her college education. Her experience at UW–River Falls would soon become a turning point in her career.

Discovering agricultural economics

Beaudry chose UW–River Falls for its strong agricultural programs and opportunities to engage with faculty and industry. She participated in undergraduate research and was selected as a McNair Scholar, a program that supports students pursuing graduate education. She also remained active in the dairy community through Minnesota's Dairy Princess program and was named a finalist for Princess Kay of the Milky Way.

"As I was exposed to research, data, and on-farm decision-making, my interests shifted toward agricultural economics and analytics. I became especially interested in understanding how technology and management influence farm profitability," Beaudry says.

Faculty quickly recognized her motivation and curiosity.

"From our very first meeting, it was apparent that Jalyssa was very passionate about the dairy community and wanted to make a difference. Growing up on a dairy farm, she had first-hand knowledge of the challenges farmers are facing, which was invaluable input for the research team," says Shaheer Burney, associate professor of agricultural business and director of the Survey Research Center at UW–River Falls.

Taking on graduate school

Beaudry's next step took her to UW–Madison, where she pursued a master's degree in agricultural and applied economics through a Hub-funded research assistantship that connected faculty advisors at UW–Madison and UW–River Falls.

"Jalyssa's enthusiasm and her prior work with UW–River Falls faculty supporting research on automated milking systems made her a standout," says Charles Nicholson, adjunct associate professor of animal and dairy sciences at UW–Madison and one of her advisors. Nicholson was also impressed that Beaudry completed both her bachelor's and master's degrees within four years.

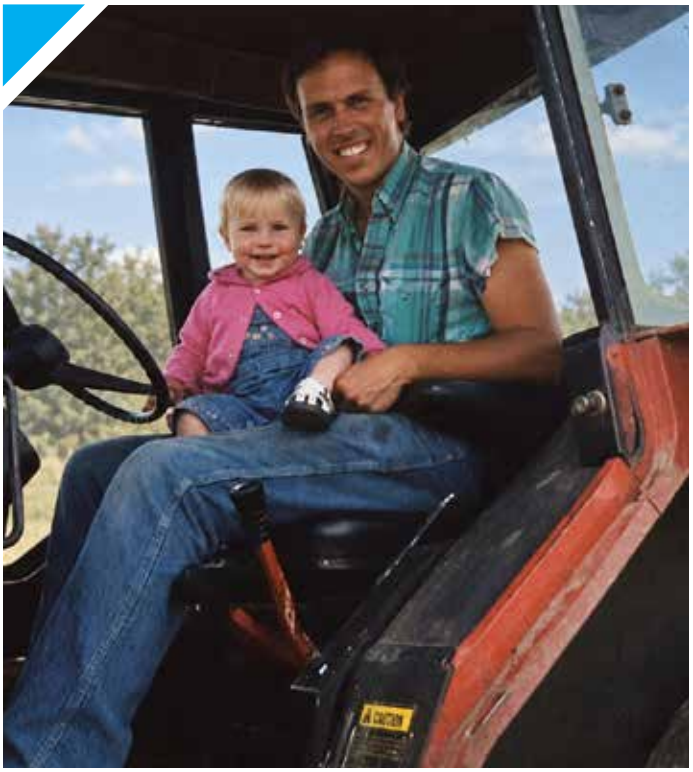
For Beaudry, the opportunity to conduct research confirmed her decision to attend graduate school.

"I was graduating two years ahead of my peers. I didn't quite know my path yet, but I knew I wanted to stay involved in agriculture and help farmers. When I got the assistantship from the Dairy Innovation Hub, it was my last sign of 'ah-ha', that's what I'm meant to do after college," she says.

Collaborative assistantships linking UW–Madison, UW–Platteville and UW–River Falls have also strengthened relationships among Hub faculty and supported new dairy-focused grant collaborations.

Research on automated milking systems

Beaudry's master's research focused on automated milking systems (AMS) and how milking frequency influences production and profitability. The project relied



Facing page: Beaudry (third from left) with family and friends during the Wright County Breakfast on the Farm event hosted at Goldview Farms in Waverly, Minn. Above: A young Beaudry sits on her dad Brian's lap for a tractor ride. Photos contributed.



on survey data from 500 randomly selected licensed dairy farms across Wisconsin.

AMS allows cows to voluntarily enter a milking unit throughout the day rather than following a fixed schedule. “AMS has become increasingly important as farms seek to use labor more efficiently and, in some cases, reduce the amount of labor needed on farms—including labor provided by members of the farm family,” Nicholson says.

Beaudry’s analysis found that management practices play a critical role in AMS success. Her research showed that cows averaging three milkings per day early in lactation produced more milk later in their lactation cycle, increasing overall milk revenue.

“Early-lactation management is a leverage point: it is one of the periods where managerial decisions and protocols — like training cows to use the robot, managing cow flow, setting permissions and fetching strategies, and nutrition alignment — can affect cow performance and the payoff of the technology investment,” says Luis Peña-Levano, Beaudry’s former advisor at UW–River Falls and now an assistant professor at UC Davis.

Her research also revealed differences in how AMS and non-AMS farms responded to challenges such as the COVID-19 pandemic. AMS farms often reduced herd sizes to manage production, while non-AMS farms more frequently adjusted feed or herd management strategies. Farms using AMS were also more likely to identify price volatility as a major concern, while non-AMS farms more often cited labor recruitment and management challenges.

“I see my research helping farmers make more informed decisions when investing in or managing AMS technology,” Beaudry says. During graduate school, she presented her findings at several dairy conferences, and the results of her study are now under review with a major dairy journal.

From dairy research to the feed industry

After earning her graduate degree, Beaudry transitioned into the grain sector, first with CGB

Enterprises and most recently with Star Blends, a feed manufacturing facility.

"I knew I wanted a career that kept me close to agriculture but also allowed me to use the analytical and communication skills I developed in graduate school," says Beaudry.

"AMS research is not just about dairy; it is training in how to evaluate modern agricultural technologies and how to turn data into business-relevant insights," Peña-Levano says.

Reflecting and looking ahead

Beaudry offers clear advice for students considering graduate school.

"Choose a topic you genuinely care about—you'll be spending a lot of time with it," she says. She also stresses the importance of building strong relationships with faculty, becoming comfortable with data and staying connected to agricultural communities so research remains grounded in real-world needs. Ultimately, she believes graduate school is most meaningful "when your work connects back to the people you aim to serve." For Beaudry, that purpose was deeply personal: giving back to the industry that shaped her and honoring previous generations of her dairy farming family.

As her career develops, Beaudry remains committed to serving rural agricultural communities.

"Working in a rural or agriculture-centered community is very important to me," Beaudry says. "I value staying connected to farmers and being in places where agriculture drives daily life." She plans to remain in the rural Midwest and pursue roles that combine analytics, farmer relationships and leadership.



Faculty who worked with Beaudry in River Falls and Madison believe she will continue making a meaningful impact.

"When someone genuinely cares about improving the lives of farmers like Jalyssa does, they make an indelible impact that resonates far and wide," Burney says.

FINDINGS



Beaudry's Hub project investigated the economic impact of early-lactation milking frequency in automated milking systems (AMS).

Her research found that cows achieving early 3X milking produced 2.7 kg/day more milk and generated 5.4% higher revenue. They also yielded more milkfat, protein and other solids, while maintaining lower somatic cell counts, increasing milk revenue by $1.40/cow/day. The findings link higher milking frequency to greater production and profitability.

READ THE ARTICLE
Read Beaudry's published research in the Journal of Dairy Science

Facing page Beaudry speaks during the growing farm business and community track at the Dairy Symposium at UW–Madison. Photo by Nguyen Tran/Dairy Innovation Hub. Above: Beaudry had her likeness carved in butter as a finalist for Minnesota's Princess Kay of the Milky Way ambassador program. Photo contributed



Mitchell Armstrong's dual mission: dairy research and military service

Mitchell Armstrong is both a PhD student in food science at UW–Madison and a First Lieutenant in the Wisconsin Army National Guard. After spending the past year deployed and leading a platoon of 16 soldiers, Armstrong is returning to his academic work with a renewed perspective. His life bridges the precision of scientific research and the discipline of military service, two distinct worlds he believes strengthen each other.

At the center of Armstrong's research is whey protein phospholipid concentrate (WPPC), a dairy co-product with health benefits beyond basic nutrition. His findings suggest WPPC may support bone health and development, offering new promise for postmenopausal women. Driven by scientific curiosity and a commitment to helping people, his work is made possible through support from the Dairy Innovation Hub, which funds his assistantship and his advisor, Gulustan Ozturk, an assistant professor of food and nutritional sciences at UW–Madison.

Finding his path

Growing up in Appleton, Wisconsin, money was tight

for Armstrong's family, making higher education seem out of reach. "The National Guard was a great opportunity to pay for my education," he said. "It enabled me to attend college, improved my leadership abilities, molded my character, and gave me many technical skills I would not otherwise have learned or developed."

He arrived on campus with plans to attend medical school, but during his undergraduate years, he discovered laboratory work, and everything changed. He completed a bachelor's degree in microbiology and earned a certificate in fermented foods and beverages, discovering a passion for the intersection of food, health, and science.

After graduation, Armstrong spent time working outside academia before deciding to pursue a PhD. That transition, he said, would not have been possible without UW–Madison's Post-Baccalaureate Research Education Program (PREP), a one-year experience designed to prepare students for the academic and research rigor of graduate school.

"It's impossible to overestimate the importance the PREP program played in my transition back into academia," Armstrong said. "They helped me identify gaps in my research knowledge and prepare me for graduate school in many ways."

The research: using WPPC for healthier aging

Armstrong's research centers on something most people outside dairy processing have never heard of: WPPC. When whey protein isolate, a popular nutritional supplement, is produced, one of the major co-products left behind is WPPC, a concentrated source of milk fat globule membrane components known for their potential health benefits.

"Many are familiar with whey as a co-product from making cheese," Armstrong explained. But WPPC comes from whey protein isolate production. It's full of unique proteins and lipids that are only beginning to be understood.

Armstrong set out to fractionate WPPC into protein-rich and fat-rich components that were then tested in a mouse model to examine their effects on growth and development.



The results are promising. Armstrong recently had a paper accepted in the Federation of American Societies for Experimental Biology (FASEB) Journal, showing that supplementation with WPPC and its fractions increased femur length and bone mineral density in growing mice.

Joseph Pierre, an assistant professor of food and nutritional sciences at UW–Madison, who co-leads the research effort, said Armstrong has been key to advancing the project. "Mitchell worked diligently and creatively under the guidance and knowledge of Dr. Ozturk to optimize the separation of fat and protein fractions," Pierre said. "By doing this, he was able to feed whole WPPC along with the protein and fat enriched fractions to understand the impact on development,

Facing page: Third from left, Mitchell Armstrong and team members from the Wisconsin Army National Guard. Photo contributed. Top: Gulustan Ozturk (fourth from left) and members of her lab at the 2025 American Dairy Science Association (ADSA) annual meeting in Louisville, KY. Photo contributed.



specifically bone development and microarchitecture, in a small animal model in early life."

The long-term implications could be significant. Bone loss is a major concern for postmenopausal women, who face an increased risk of osteoporosis and related fractures as estrogen levels decline.

"I see my research as an important stepping stone to develop real-world, targeted nutritional support to millions of postmenopausal women," Armstrong said. "There are currently very few options for women dealing with the health consequences of menopause. I am grateful to be part of something with the potential to touch so many people."

The Hub has played a pivotal role in making this research possible. "For students like Mitchell, this support translates into hands-on experience with cutting-edge technologies and the opportunity to publish, present, and collaborate across departments and industry partners," Ozturk said. "It has truly elevated the kind of experiential learning and research mentorship we can offer at UW–Madison."

Military service and academic life

Armstrong joined the Army National Guard primarily to pay for school but also out of dedication to serving his country. Over the years, service has shaped his character, leadership skills, and sense of responsibility.

"If I had to pick a single organization that has shaped my life the most, it would be the Army," he said. But service is not without sacrifice. Armstrong has missed class, lost valuable research time, and struggled to balance physical training requirements with academic deadlines. His current deployment, which began in late 2025, will delay his PhD by a year.

"Research is largely driven by individuals," he explained. "It is difficult to have others cover for my absence when researchers are often all busy with their own, different work."

Armstrong has been serving in the Middle East for the last year in support of Operation Spartan Shield where he serves as a platoon leader in a HIMARS rocket truck unit, responsible for soldiers ranging from Private First Class to Sergeant First Class.

This deployment has required careful planning to ensure his research projects can continue in his absence. Pierre noted Armstrong's leadership in preparing the lab for continuity. "Specifically sharing the protocols he's optimized, and where to find and leverage resources he currently provides when he is absent," Pierre said.

Ozturk echoed that sentiment. "Mitchell's reliability and initiative make him an exceptional student," she said. "He also plays a key leadership role in mentoring new students, fostering a collaborative and supportive lab culture. Beyond his technical ability, Mitchell brings a sense of fun and creativity to our group."

A future guided by service, science, and Wisconsin dairy

Armstrong's work is driven by a clear purpose: using science to make a tangible difference in people's lives. His focus on WPPC and its potential to support women's bone health reflects that motivation, especially for a population that has long faced limited options for addressing menopause-related bone loss.



As he and his wife think about their future, Armstrong is keeping his long-term plans flexible. While academia has shaped his path, he expects his future to remain closely tied to Wisconsin's dairy industry. "My work will certainly stay within the agriculture — specifically dairy — fields due to my desire to remain in Wisconsin," he said.

For other veterans or nontraditional students considering graduate school, Armstrong encourages thoughtful preparation and confidence. Communicating with unit leadership, planning for potential absences, and trusting in one's ability to succeed, he says, are essential steps.

Across both the lab and the military, Armstrong's path is guided by the same core values: serving others, stepping up as a leader, and believing in the difference Wisconsin agriculture can make. With support from the Dairy Innovation Hub and the values that shaped him, he continues to move between these two worlds—pushing his research forward, supporting his community, and working toward a healthier future for the people who depend on it.

FINDINGS



Armstrong investigates the health potential of whey protein phospholipid concentrate (WPPC), a dairy co-product rich in bioactive proteins and fats.

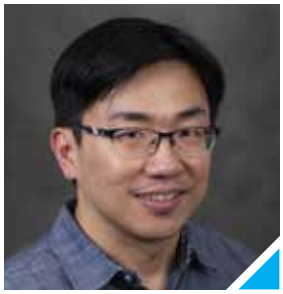
His research found that WPPC supplementation increased femur length and bone mineral density in growing mice, suggesting promising applications for supporting bone health and development and laying the groundwork for future nutritional strategies for postmenopausal women

READ THE ARTICLE
Read Armstrong's published research in the FASEB Journal

Facing page: Armstrong received a field promotion to First Lieutenant (1LT) in 2023. Photo contributed. Above: Armstrong speaks during the human health and nutrition breakout session at the 2025 Dairy Symposium at UW–Madison. Photo by Nguyen Tran/Dairy Innovation Hub

WASTE TO WORTH

UW–Platteville professors turn spoiled dairy into sustainable plastic





Joseph Wu
professor
chemistry
UW–Platteville

John Obielodan
professor
mechanical engineering
UW–Platteville

With support from the Hub, an exciting patent will give dairy waste a second life in 3D printing

In a powerful blend of agricultural ingenuity and sustainable technology, two University of Wisconsin-Platteville professors have patented a revolutionary way to turn spoiled milk into biodegradable plastic—paving the way for new markets for dairy producers and a greener future for manufacturing.

The project, backed by early and ongoing support from the Dairy Innovation Hub, showcases what's possible when innovation meets investment. Using milk proteins like casein and whey, the team developed a 3D printing material that replaces petroleum-based plastics with a renewable, eco-friendly alternative.

"Who would have thought 3D printing and dairy protein could be combined to create a new material?" quipped Dr. Joseph Wu, associate professor of chemistry. "My hope is that it will help both dairy farmers in Wisconsin and the 3D printing industry."

From spoiled milk to sustainable innovation

The research was sparked during the COVID-19 pandemic, when milk dumping brought attention to the industry's vulnerabilities. Professors Wu and Dr. John Obielodan, chair of mechanical and industrial engineering, began exploring how discarded dairy proteins could be repurposed as high-performance polymers.

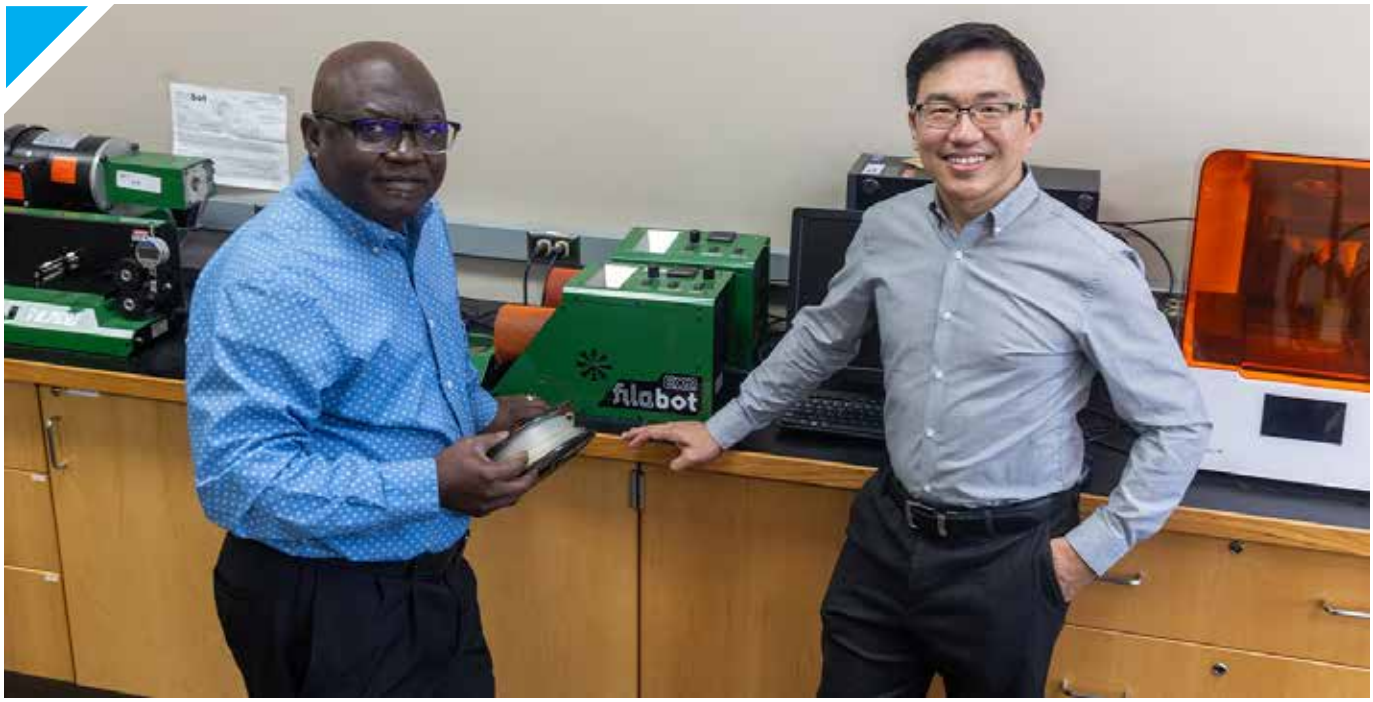
The answer? A patented process to convert casein and whey into durable, flexible materials suitable for 3D printing and beyond.

"We knew dairy products contain proteins like casein and whey," observed Obielodan, professor and chair of the Department of Mechanical and Industrial Engineering. "We asked ourselves, 'Why can't this milk, instead of being wasted, be turned into something valuable?'"

That simple question ignited a five-year journey of experimentation, development and persistence. The effort culminated in WiSys being awarded a U.S. patent for a novel method of transforming dairy waste into usable plastic—a breakthrough with global significance as the widespread use of non-biodegradable, petroleum-based plastics remains a major concern.

The Dairy Innovation Hub's role

The research was made possible by a two-year, $50,000 grant from the Dairy Innovation Hub, a state-supported initiative linking UW-Platteville, UW-Madison



and UW-River Falls. Over time, additional funding brought the Hub's total investment in the project to approximately $180,000.

"As farmers and innovators, we believe in the quality and power of milk," said Maria Woldt, director of the Dairy Innovation Hub. "It's really inspiring to see researchers like Dr. Wu and Dr. Obielodan finding alternative uses for this safe, high-quality, natural and sustainable product."

The project was among the very first funded by the Dairy Innovation Hub, and its success reflects the Hub's mission to drive innovation in research, teaching and outreach for the state's $52.8 billion dairy industry.

A circular economy for dairy

Beyond its immediate scientific and agricultural benefits, the invention contributes to the growing circular economy movement—turning food waste into valuable new products while reducing the environmental burden of traditional plastics.

"Farmers work to avoid waste, and the motivation behind this project aligns with that core value," added Woldt. "We are thrilled that after a little more than five years we helped move an innovative idea forward that will lead to additional uses for milk. Tangible examples like this show we are delivering on that promise."

Looking ahead, the patent opens the door for commercialization, and future products could range from 3D printer filaments to biodegradable containers, custom tools, and even medical devices, all derived from dairy.

"This is what happens when universities, researchers and agriculture invest in innovation together," Wu said. "We're connecting the dots between sustainability and industry—and it all started with a glass of milk."

EXPLORE ONLINE *Scan QR code to read the full story about Joseph Wu and John Obielodan's exciting Hub-funded research and patent.*

Above: John Obielodan (left) and Joseph Wu (right) in the lab following the announcement of their U.S. patent. Photo by Andrew McNeill/UW–Platteville

OUTREACH

SOCIAL MEDIA

- 5,913 followers across four social platforms, a 16% increase over FY 25
- LinkedIn continues to be the top performing platform
- 170,479 impressions on LinkedIn in FY 26, average engagement rate is 7%, which is considered very high by social media standards, especially for an institutional account
- Top Facebook post: "UW–Madison selects short-term, high-impact awards", Megan Lauber and Badger Dairy Camp
- Top X post:, "Share your research with dairy leaders", 10% engagement rate in FY 26
- 19.7k views on YouTube. A 22% increase year over year.

MEDIA RELATIONS

- 341 popular press mentions, consistent with FY 25. Total engagement of 936, which is up 90% from last report
- Twelve press releases distributed to media promoting funding decisions at UW–Madison, UW–Platteville, and UW–River Falls
- Regular media interviews with Hub staff and researchers

PUBLIC ENGAGEMENT

- Dozens of public and stakeholder presentations given by Hub staff. Including campus centers, conferences, information sessions, trade groups, agencies, and legislators
- Multiple in-kind articles and blog posts authored by Hub staff (not including researchers), contributed to stakeholder publications
- Continued a campaign targeting farmer-facing marketing and outreach opportunities, including a partnership with Alice in Dairyland

E-NEWSLETTER



From its onset, maintaining close communication has been a priority for the Hub. The Hub maintains a quarterly e-newsletter that sends to more than 1,767 (and growing) unique Hub stakeholders, funded researchers, dairy leaders, state agencies, and key legislators.

Contacts are invested in some way with the Hub, and have "opted in" to receive content. Mass or purchased email lists are not used, and all content is original.

Increasingly, citizens and related public groups are interested in Hub initiatives and have subscribed to the e-newsletter.

Anyone interested in receiving updates from the Hub can sign up at dairyinnovationhub.wisc.edu. All content is free and publicly available.

DAIRY SUMMIT

The Hub held its sixth annual Dairy Summit on Nov. 18, 2025. The event was hosted by UW–River Falls in a hybrid format. There were 239 registrations, which is consistent year over year. Most attendees participated in person, with additional live viewership and on-demand virtual engagement afterward.

The summit included welcome remarks, progress reports on Hub-funded research projects, as well as a panel of students working on Hub projects. In-person attendees enjoyed three robust tour options including the Dairy Pilot Plant, the Meat Plant and the Humane Handling Institute. The Dairy Summit highlights the Hub's *newest* research and is formatted for a public audience.

DAIRY SYMPOSIUM

The Hub hosted its fifth annual Dairy Symposium on May 12, 2026, at the Memorial Union on the UW–Madison campus. The day-long event drew over 270 attendees—including researchers, students, academic partners, and campus affiliates—making it the largest symposium to date.

Through poster sessions, keynote presentations, breakout discussions, and student flash talks, the Dairy Symposium highlighted examples of the Hub's most advanced research and facilitated discussions about how this work can help meet the challenges facing today's dairy community.

The symposium is the academic-focused companion to the public-focused Dairy Summit held each November.

"The interdisciplinarity of the Hub is really evident in the poster sessions and the presentation sessions," said Brad Bolling, professor in the UW–Madison Department of Food and Nutritional Sciences. "You can talk to anybody [at the Symposium] and learn something from them, something you don't know. It's so invigorating to get to learn from each other – and find inspiration for future projects and collaborations."







From top: UW–Madison graduate student Gracie Vosters speaks during a student panel at the Dairy Summit. Middle: UW–Madison graduate student Jack Myers presents a flash talk during the Dairy Symposium. Bottom: Students present their research during the poster session at Dairy Symposium. Photos by Nguyen Tran/Dairy Innovation Hub

OUTREACH (continued)

TAKING RESEARCH ON THE ROAD

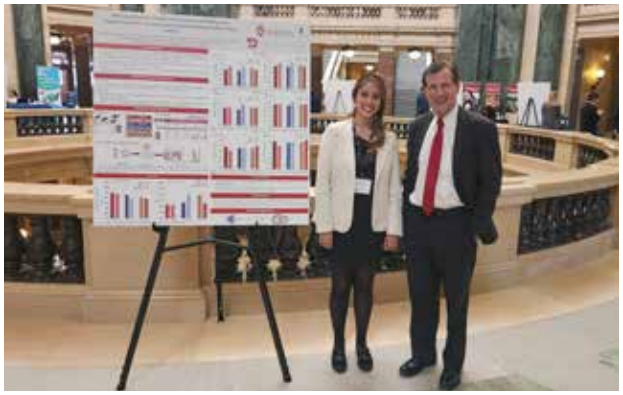
Outreach and education are core tenets of the Dairy Innovation Hub. One of the best ways to share outcomes from Hub-funded research is by having a presence at meetings, conferences, and events. This year, the Hub team hit the road and shared project outcomes from researchers at UW–Madison, UW–Platteville and UW–River Falls with the public.

In January, the Hub hosted an informational research poster session at the State Capitol to highlight research at each participating campus. Legislators, staff, and the public browsed research posters and engaged with students and faculty affiliated with Hub-funded projects. The poster session was co-located with Wisconsin Farm Bureau Federation's Ag Day at the Capitol.

This winter, the Hub had a presence at the Dairy Strong conference and the PDP Business Conference. Also at the Business Conference, PDP invited multiple Hub-funded faculty to present on the Preview Stage. For the fifth year, 30 research posters were displayed in the Nexus Innovation Lane area. This space is dedicated to inventors, creators, and idea-generators sharing their most novel ideas.

This spring, the Hub continued a strategic farmer-focused outreach campaign to increase awareness with farmers and related agriculture channel partners. The campaign includes several key elements such as advertisements with top agriculture news websites, engagement with the Alice in Dairyland program, and involvement in multiple state agriculture communicators groups. These paid and earned media opportunities are leading to increased communication and awareness across Wisconsin agriculture groups, farmers, and dairy processors.

During the summer months, the Hub had the unique opportunity to showcase funded research on-farm and in-field. Several industry groups enjoyed guided tours and demonstrations, seeing first-hand the added capacity made possible by the Hub.







From top: Martina Mancheno Valarezo, a graduate student at UW–Madison speaks to Rep. Dave Murphy during a poster session at the State Capitol. Middle: Alice in Dairyland, Sarah Hagenow, and Kurt Vogel, work with a captive bolt gun during the Dairy Summit. Bottom: Matt Ruark and graduate student Hannah Francis presented at the annual Professional Dairy Producers conference. Photos contributed

AWARD LISTING

FY 26 funding decisions by priority area

Awards in this section were selected by panels of faculty colleagues through a competitive proposal process where faculty and staff submitted a research idea, budget, and justification.

Stewarding land and water resources

UW–Madison

Graduate student assistantships

- Productivity of forages in a short-corn silage and alfalfa inter-seeding system – Harkirat Kaur, Plant and Agroecosystem Sciences. Student: Romulo Oliva
- Sustainable intensification of corn silage-livestock systems under tile drainage – Mallika Nocco, Department of Biological Systems Engineering; Joseph Sanford, School of Agriculture (UW–Platteville). Student: Daniel Maraldo

Short-term, high-impact projects

- Advancing conservation in dairy cropping systems through farmer-led research – Abby Augarten, UW–Madison Division of Extension
- On-farm evaluation of nutrient export from alfalfa production – a survey of Wisconsin production fields – Chris Bandura, UW–Madison Division of Extension

UW–Platteville

Faculty research fellowships

- Short-stature corn as a sustainable alternative for silage production: agronomic efficiency and economic feasibility – Kelvin Amon, School of Agriculture

Equipment

- Expanding water quality and soil health monitoring for sustainable dairy grazing systems – Dennis Busch, Pioneer Farm
- Monitoring nitrate movement to protect Wisconsin groundwater – Joseph Sanford, School of Agriculture
- Advancing sustainable manure composting for Wisconsin dairy farms – Joseph Sanford, School of Agriculture
- Advancing nutrient recovery research to protect Wisconsin's water resources – Joseph Wu, chemistry

UW–River Falls

Faculty research fellowships

- Tracing the legacy: baseline assessment of potentially toxic trace metals under long-term manure application – Ashani Thilakarathne, Department of Plant and Earth Science

Equipment

- Transforming nitrite and nitrate analysis through new analytical enhancement – Kurt Spokas, Dairy Innovation Hub Analytical Lab Manager
- Metals matter: developing a metal analysis lab for the Dairy Innovation Hub – Kurt Spokas, Dairy Innovation Hub Analytical Lab Manager
- Acquisition of a variable-speed manure spreader for Mann Valley Farm – Duane Thompson, Mann Valley Farm

AWARD LISTING (continued)

Growing farm business and community

UW–Madison

Postdoctoral fellowships

- Comparative analysis of liquid manure injectors for sustainable dairy farming to enhance farm businesses and communities in Wisconsin – Matt Digman, Department of Biological Systems Engineering. Research support: Aaron Timm

Short-term, high-impact projects

- Re-establishing dairy youth programming in America's Dairyland to ensure the sustainability of Wisconsin's dairy workforce – Laura Hernandez, Department of Animal and Dairy Sciences

UW–Platteville

Faculty research fellowships

- Beyond feed: an alternative safety net for Midwest dairies through non-feed cost reduction – Kelvin Amon, School of Agriculture
- The future of dairy entrepreneurship through the PYLot project – Marcia Harr Bailey, School of Business

Equipment

- Improving alfalfa drought resilience and feed quality for Wisconsin dairy farms – Raymond Pugh, chemistry

UW–River Falls

Faculty research fellowships

- Export market concentration and dairy price risk: implications for Wisconsin farm businesses – Mohammad Hasan Mobarok, Department of Agricultural Economics

Equipment

- UW–River Falls dairy mechatronics space: a design thinking hub for Wisconsin dairy innovation – Magdy Abdullah Eissa, Department of Engineering and Engineering Technology

Ensuring animal health and welfare

UW–Madison

Postdoctoral fellowships

- Large-scale detection of calf morbidity: integrating drones and computer vision for health monitoring in rearing facilities – Joao Dorea, Department of Animal and Dairy Sciences. Trainee: Guilherme Lobatoa
- Beyond summer heat: unraveling how prenatal heat stress affects performance across generations – Jimena Laporta, Department of Animal and Dairy Sciences. Trainee: Rafaela Rodrigues dos Santos

Short-term, high-impact projects

- Measuring methane emissions in young bulls: the fast track to more sustainable dairy farming – Francisco Peñagaricano, Department of Animal and Dairy Sciences
- Developing practical educational tools to advance dairy workforce training and improve milk quality and udder health – Carolina Pinzón, UW–Madison Division of Extension
- Understanding and reducing pregnancy loss in lactating dairy cows – Milo Wiltbank, Department of Animal and Dairy Sciences

UW–Platteville

- *No awards in this area in FY 26*

Ensuring animal health and welfare cont.

UW–River Falls

Faculty research fellowships

- Captive bolt placement effects on tissue depth and thalamic damage in dairy cattle cadavers – Karly Anderson, Humane Handling Institute
- Farm GPT (herd pilot): custom LLM advisor for dairy cow health monitoring with precision data for bovine management – Magdy Abdullah Eissa, Department of Engineering and Engineering Technology
- Molecular epidemiology of pathogens isolated from subclinical mastitis cases in Wisconsin dairy cows – Maria Jose Fuenzalida, Department of Animal and Food Sciences

Equipment

- Improving udder hygiene and reducing mastitis through adoption of an automated teat preparation system at Mann Valley Farm – Duane Thompson, Mann Valley Farm
- Enhancing safety, animal welfare, and research capacity with upgraded headlocks and automated livestock curtains at Mann Valley Farm – Duane Thompson, Mann Valley Farm



Enriching human health and nutrition

UW–Madison

Graduate student assistantships

- Defining and enhancing the intrinsic antimicrobial properties of bacterial communities on wooden cheese boards – Tu-Anh Huynh, Department of Food and Nutritional Sciences. Student: Shreya Kumar

Postdoctoral fellowships

- Enhancing health: development of bioactive peptide-enriched string mozzarella cheese to combat hypertension in postmenopausal women – Gulustan Ozturk, Department of Food and Nutritional Sciences. Trainee: Yu Hasegawa

Short-term, high-impact projects

- Wellness on Wheels – Cultivating and evaluating health and safety across Wisconsin dairy farms – John Shutske, Department of Biological Systems Engineering

UW–Platteville

Equipment

- Building food quality testing capacity to support Wisconsin dairy innovation – Zifan Wan, School of Agriculture

UW–River Falls

- *No awards in this area in FY 26*

Scan QR code to access the fully searchable "Project Showcase" database. Left: attendees tour the Sedron Varcor nutrient recovery system at Kinnard Farms in Casco, Wis. during th Hub's summer innovation showcase. Photo by Nguyen Tran/Dairy Innovation Hub

OUR STORY

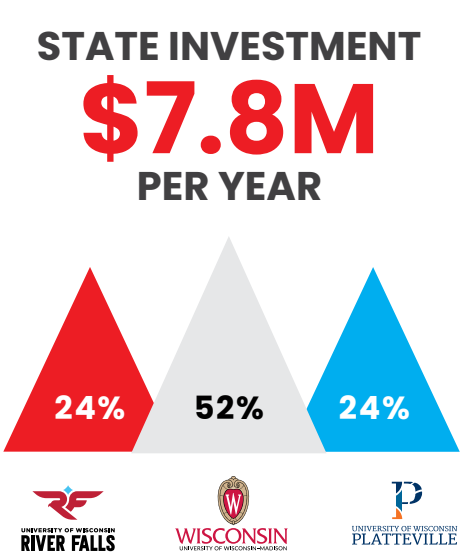
The Dairy Innovation Hub was first imagined during an informal meeting at Mitch Breunig's Mystic Valley Dairy in Sauk City. After the initial concept was developed, dairy groups and passionate dairy leaders partnered with the Universities of Wisconsin to bring this idea to reality.

The concept was brought to the State's special Dairy Taskforce 2.0 in December of 2018 and was followed by introduction of legislation by Senator Howard Marklein and Representative Travis Tranel in May 2019. The following months included approval of a spending plan set to guide the Hub's efforts and funding became available to campuses in late 2019.

In seven years, the Hub has created mechanisms to manage the investment, funded more than 300 proposals, and facilitated 24 faculty searches. The accomplishments listed herein are the result of data collected from funding recipients to track progress and accountability.



THE DAIRY INNOVATION HUB is supported by a $7.8M annual state investment to drive research and development across the UW–Madison, UW–Platteville, and UW–River Falls campuses, ensuring that Wisconsin's $52.8 billion dairy community remains a global pacesetter in producing nutritious dairy products. This is all accomplished with a keen focus on economic, environmental, and social sustainability.







HOW DID WE GET HERE?

Above: *On January 21, 2026, the Hub hosted an informational research poster session at the State Capitol to highlight select projects funded by the initiative at UW-Madison, UW-Platteville, and UW-River Falls. Photo by Elisabeth Berndt/Dairy Innovation Hub*

HOW DID WE GET HERE?

DEC. 2018
Concept endorsed by Dairy Task Force 2.0

MAY 2019
Original legislation introduced by Sen. Marklein and Rep. Tranel

AUG. 2019
UW Board of Regents approves Hub spending plan

OCT. 2019
JFC releases funding

DEC. 2019
Funding available to campuses

JAN. 2020
First funding decisions made

MARCH 2020
Campuses cease in-person instruction due to COVID-19

AUG. 2020
First faculty start. In total 11 new faculty positions hired/in progress

FY 22
Campuses hold funding calls, hire faculty and report outcomes. On average, the Hub funds 50-70 proposals per year

NOV. 2021
Hub returns to in-person event format for Summit and Symposium

FY 23
Hub researchers report hundreds of students engaged, publications, and outreach meetings. Nearly $7M in related grants

FY 24
230+ funding awards and 21 faculty searches complete. Research impacting farmers, program alumni contributing to ag workforce in Wisconsin

FY 25
260+ funding awards and 23 faculty searches completed. Engaging outreach events and tours showcasing examples of industry collaboration

JULY 2026
300+ funding awards and 24 faculty hires to date. Advancing discoveries that support a sustainable and competitive dairy community

CURRENT FY
In just seven years, functioning at steady state. Regular calls for research proposals, graduate students and postdoctoral fellowships



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