CENTER FOR DAIRY RESEARCH

DAIRY PIPELINE

A TECHNICAL RESOURCE FOR DAIRY MANUFACTURERS | SPRING 2022 | VOL. 34, No. 1

2022 WISCONSIN MASTER CHEESEMAKERS

The Center for Dairy Research (CDR) and Dairy Farmers of Wisconsin (DFW) are excited to announce the 28th graduating class of the Wisconsin Master Cheesemaker® program. This year's class is one of the largest in recent years, with three new and three returning Master cheesemakers.

"I want to congratulate both the returning and new Master Cheesemakers," said Andy Johnson, coordinator of the Wisconsin Master Cheesemaker® program. "I am proud and excited to continuing working with this impressive group. The new Masters are a fine addition to the program and will help carry on the tradition of passion and quality cheesemaking that the program embodies."

To be eligible for the Wisconsin Master Cheesemaker® program, cheesemakers must be licensed Wisconsin cheesemakers for at least 10 years. Before applicants are accepted into the program, they are required to complete CDR's Advanced Cheese Technology, Short Course and one other workshop of their choice. In addition, applicants undergo a plant visit where they lead a walk-through of their facility and must pass an oral exam. Once they are accepted into the program, participants complete a list of courses and an intensive exam. In addition, the cheeses they are being certified in are graded for flavor, composition and microbial analysis—this is done three times before they can graduate as a Master cheesemaker. All said, it takes about three years to complete, and, in the end, once successful, the cheesemaker earns the honor and respect of becoming a Master cheesemaker as well as the right to use the Master Mark® on their products.

More than 90 cheesemakers have earned the title of Wisconsin Master Cheesemaker in dozens of varieties of cheeses. Many Wisconsin Master Cheesemakers have earned multiple certifications in different cheese types/styles. Please join CDR and DFW in recognizing the 2022 Wisconsin Master Cheesemakers.

✷ New Master Cheesemakers ✷

CHARLES HENN
Agropur, Weyauwega
Certified Master: Cheddar

Cheese has taken Charles Henn around the world. It all started when, as a student at the University of Wisconsin-River Falls, Henn got a cheesemaking job in the university's dairy plant.

"I went to college thinking I was going to be a veterinarian. When I first applied to vet schools after my junior year in college, I got denied. My college advisor tried to cheer me up and he told me I'd probably make more money as a cheesemaker than as a vet," Henn said with a laugh.

As part of the university dairy plant job, an alumnus from China brought Henn and other college cheesemakers to China where they spent three weeks on a Tibetan plateau making Halloumi cheese from ➡

What's Inside:

Yak's milk. "I had a pretty unique college experience and that was all because of cheese," he said.

After graduating, Henn went to work at Belgioioso where he made cheeses like Mascarpone and Ricotta for more than 10 years. Henn now works at the Agropur plant in Weyauwega where he makes Cheddar. This year, Henn joins the ranks of the Wisconsin Master Cheesemakers with a certification in Cheddar.

"Cheddar's always been my favorite cheese," he said. "I enjoy eating curds too, but I really enjoy a good sharp Cheddar."


CHARLES HENN

Becoming a Master Cheesemaker has been a goal of Henn's. "I first heard about the Wisconsin Master Cheesemaker® program in 2003 when I got my cheesemakers license. I always thought it would be neat to become one."

"I really enjoyed going to the classes," Henn said. "I learned a lot going down to CDR. Spending time in class was enjoyable, it was just a really good learning experience."

Looking ahead, Henn said he would be interested in earning a Master Cheesemaker certification in Feta cheese. The Agropur plant in Weyauwega, where Henn works, makes a lot of Feta. "I don't have any experience in Feta, but I told the plant manager I'd be willing to put the time in to become a master in Feta. I never knew how Feta was made or really even ate any before I got here."

Looking back, it's probably safe to say that things worked out for the better for Henn. Although he initially hoped to be a veterinarian back when he was in college, he says he likes his career as a cheesemaker.

"I really enjoy the difficulty of cheesemaking," he said. "There's a lot of work in finding out how to fix the problems and that's what I enjoy – the difficulty of it and the variety of issues that you'll have."


KEN KANE

KEN KANE
Sartori, Plymouth
Certified Master: Romano and Parmesan

It seems to be destiny that Ken Kane became a cheesemaker. He was named after his grandfather who owned a dairy farm and was a cheesemaker in the Upper Peninsula of Michigan.

"My grandfather would milk the cows in the morning, bring the milk into the plant and make cheese," Kane said. "My dad always loved it when my grandfather brought home fresh curd from the plant."

However, it wasn't until Kane was a couple of years into his own career at Sartori that his dad told him about his family's history and legacy in the dairy industry. "It's a pretty cool experience to bring it full circle, to get his name, and to be a cheesemaker as well," he said.

Kane started his career in 2005 at the Sartori plant in Plymouth, Wisconsin where he initially worked in food sanitation. Over the years, he said he worked about every job in the plant, eventually landing on cheesemaker.

"I started working with the cheesemakers," Kane said, "They showed me the ropes and eventually I moved into a cheesemaking role and began my apprenticeship to gain my cheesemakers license."

Right away, he fell in love with the work. "The creative process of cheesemaking really drew me in," he said. "I love creating something day in and day out that starts out as a singular product and is completely transformed through the cheesemaking process."

As soon as he learned about the Wisconsin Master Cheesemaker® program, he knew he wanted to be one. "That was really my true north and everything that I did was about trying to get to that point," Kane said. "I started to develop different cheeses and broaden my scope of what cheese really was. It was really interesting and motivating to work toward the Master program."

He added that he was fortunate to have good mentors like Master Cheesemaker Mark Gustafson, "We really get into the art and science of cheesemaking. It is a great challenge every day."

This year, Kane has achieved his goal of becoming a Master Cheesemaker with certifications in Parmesan and Romano. "I learned how to make cheese by making Parmesan and Romano cheese," he said. "So, it was really near and dear to my heart to obtain certifications in those two cheeses."

Kane said it's special to be part of the Wisconsin Master Cheesemaker® program because of how the program elevates Wisconsin cheesemaking. "It really showcases what Wisconsin is all about," he said. "It's about our craft and our dedication to the land, our farmers and our product."

SHAWN SADLER

AMPI, Jim Falls
Certified Master: Cheddar and Monterey Jack

Over the course of his 25-year career, Shawn Sadler has gone from literally sweeping the floors to running the place. Sadler, who is currently the Cheese Plant Superintendent at the Associated Milk Producers, Inc. (AMPI) location in Jim Falls, Wisconsin, started working at the plant right out of high school.


SHAWN SADLER

"My dad had worked here for most of his career and I thought it seemed like a good place to work," Sadler said. "I just started working on the floor, doing cleanup and helping with various other jobs."

Eventually, Sadler found his way into cheesemaking and got his license. It wasn't long until the plant supervisor asked Sadler if he'd be interested in a foreman role. At this time, Sadler started taking short courses at CDR and learning more about cheesemaking. Then the plant supervisor job opened, Sadler was encouraged to apply, and he has been in that role for about four years. Through it all, Sadler said that he has learned to love the cheesemaking process and the interesting challenges that go with the job.

"It seems like you're always learning something new," he said. "Every time you think you have cheese figured out there's always something else to learn. I'm always trying to tweak something. We don't standardize our milk here, so we're always trying to tweak things through the seasons."

Now, Sadler joins the ranks of the Wisconsin Master Cheesemakers with certifications in Monterey Jack and Cheddar. Sadler picked those cheeses because his plant makes a lot of Cheddar and Pepper Jack (Monterey Jack is the base for Pepper Jack). Overall, he said the Wisconsin Master Cheesemaker® program was a great experience.

"I think it's a very good program and I learned a lot completing it," he said. "Anyone interested in learning more in the cheesemaking industry should take the program."

One part of the program that he liked was the opportunity to network with other cheesemakers, "Getting connected with other cheesemakers was really helpful. Being able to talk to other people in the industry in other plants; that's phenomenal."

Looking ahead, Sadler said he's heard that Pepper Jack may get a Standard of Identity in the United States Code of Federal Regulations, which would most likely mean it would be an eligible cheese for the Master program. "I would definitely be interested in that."

✷ Returning Master Cheesemakers ✷

JAMIE FAHRNEY

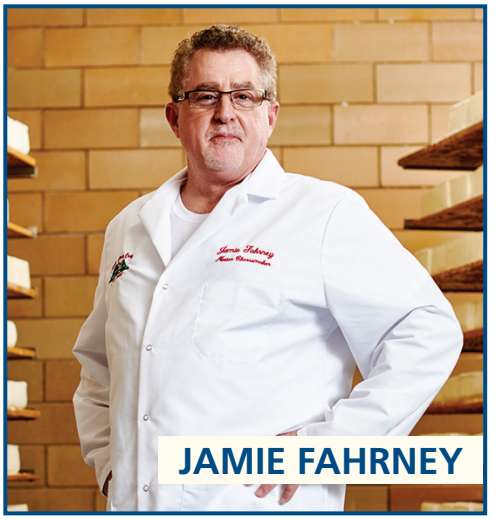
Chalet Cheese Cooperative, Monroe
Certified Master: Limburger and Swiss

Jamie Fahrney started working at Chalet Cheese Cooperative in Monroe Wisconsin when he was 16. "After my first day, I went home and told my mother, 'I don't know if I want to do this cheesemaking stuff, it's pretty tough work.' Then my dad came home, and he told me, 'You're staying right where you're at.' I've been here ever since."

Fahrney has been at Chalet Cheese Cooperative for about 44 years. He started working full time at the historic ➡

cheese plant after graduating high school in 1980 and earned his cheesemakers license in 1985. Chalet Cheese Cooperative was founded in 1885 and is one of the oldest cheese cooperatives in the nation. It's also one of the most well-known because of a certain cheese that it produces – Limburger.

"We're famous for our Limburger because we're the only ones in the United States making it," Fahrney said. "However, Swiss and Baby Swiss is our main business." This year, Fahrney earns Master certifications in Limburger and Swiss. He also holds certifications in Brick and Baby Swiss.


JAMIE FAHRNEY

"My favorite cheese is that old time Swiss – those 200-pound wheels of Swiss," Fahrney said. "I still remember as a kid going into the local Swiss plant. My dad bought some Swiss and I think it wasn't two days gone by and I had that piece of cheese eaten myself. It's like candy to me."

Fahrney's connection to Wisconsin cheesemaking history and culture is remarkable. He was hired by Albert Deppeler, who is known for the development of Baby Swiss. And Fahrney was mentored by Master Cheesemaker Myron Olson. Fahrney continues a traditional approach to cheesemaking at Chalet Cheese Cooperative, "Our plant still uses the hands-on approach — we think it is the best way. We don't have the push button vats where you're not even involved in it."

As Fahrney said, Chalet Cheese Cooperative's claim to fame is its Limburger. However, he added that their Limburger production has declined in recent years, "The younger crowd today doesn't care as much for that full-flavored cheese." The cheese is, of course, well known for its strong aroma and flavor.

"Limburger gets the bad connotations with the jokes about it and what not. It's unfortunate but unfortunately they're all true too," Fahrney said with a laugh.

Still, Fahrney doesn't think Limburger is going to go away anytime soon, "There's always going to people who like a full-flavored cheese."

MATT HENZE
Decatur Dairy, Broadhead
Certified Master: Brick and Butterkäse

Like a lot of Wisconsin Master Cheesemakers, Matt Henze fell in love with cheesemaking right from the start.

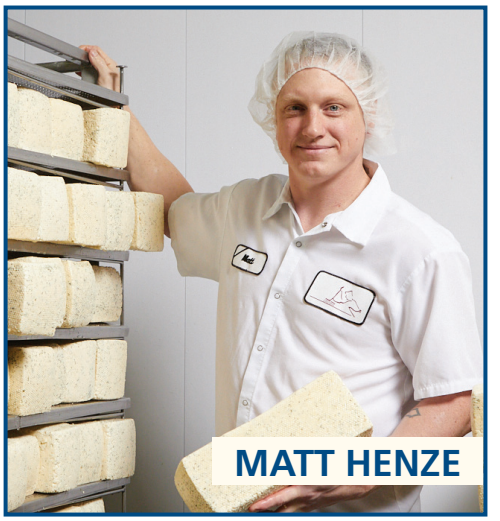
"It all started when I graduated high school and needed a job," Henze said. "A buddy was working at Decatur Dairy and he got me a job. I just fell in love with it."

At Decatur Dairy, Henze found a good mentor in Steve Stettler, a Wisconsin Master Cheesemaker with certifications in seven cheeses.

"I started in the pack room and I overheard Steve talking about training someone else on how to make cheese," Henze remembers. "And I asked Steve, 'What do I got to do to make cheese?' And he said, 'Be here tonight.' So, I came in and it started from there. Steve taught me everything."

Henze added, "I'm very fortunate that I had Steve be the one to teach me. It's a great honor. Like I said, I learned everything from him."

Henze has now been making cheese for almost 20 years. In 2018, he earned Master certifications in Muenster and Havarti. This year, he adds Brick and Butterkäse. He said he picked those cheeses because they make a lot of Brick and Butterkäse at Decatur Dairy. Overall, Henze said that he has enjoyed the Wisconsin Master Cheesemaker® program.


MATT HENZE

"I think it's a great program for people to learn everything about cheese – the steps, the process," he said. "It's a good opportunity for somebody that loves

making cheese and wants to make a career out of it and be rewarded for all the hard work they put into it."

Looking back, Henze said he is fortunate that he landed that job at Decatur Dairy.

"The best part is creating something that people enjoy," he said. "I think we get compliments every day. We have a cheese store here at Decatur Dairy and hearing the feedback from everyone enjoying our product; that's what I enjoy the most."

GERARD KNAUS

Weyauwega Star Dairy, Weyauwega
Certified Master: Monterey Jack and Muenster

Gerard Knaus comes from a long tradition of cheesemaking. His family has been making cheese for four generations, "Now I have nieces and nephews in it and it's just great to see them carrying on the family business."

Knaus was still in high school when he started making cheese, "I remember it started with sampling and testing milk with my dad and then one day he said, 'Let's go in the plant and make some cheese.' And it started from there."

Now Knaus has been making cheese for about 42 years and he said he still likes the challenge of cheesemaking and the drive to make a good quality product. "It's always an adventure," he said. "You always try to do things to make it better so that it's the absolute perfect way that you want it. It's an art."


GERARD KNAUS

This year, Knaus earns Master certifications in Monterey Jack and Muenster. In total, he has an impressive eight Master Cheesemaker certifications. Knaus is especially proud to add Muenster to his list of Master cheeses, "It's a really nice cheese and you can put it anywhere and people love it. It has a nice flavor to it, it's creamy. It's some of the best."

As mentioned, Knaus is a veteran of the Wisconsin Master Cheesemaker® program and he credits current and former CDR and University of Wisconsin staff like Marianne Smukowski, John Jaeggi, Mark Johnson, Bob Bradley, and Bill Wendorff for the success of the program and for the great education in the CDR Short Courses. "They wanted you to do the best you can," Knaus said. "They did whatever they could to teach you. It wasn't just, 'Here's a book and read it.' No, they came in and were very thorough with everything they did."

As for the Wisconsin Master Cheesemaker program itself, Knaus said it helps elevate Wisconsin cheese and cheesemakers, "The Master program; no one else has something else like it." He also adds that he encourages younger cheesemakers to apply for the program.

Knaus also said that the Master program isn't just about earning a medal; it's about getting real knowledge that you can use every day in the plant. He is very passionate about making the best possible cheese.

"You got to make sure you do it right," Knaus said. "Get quality milk in, get your yields right. Talk to your farmers, make friends with them and make sure they know this is what we're trying to achieve."

That same attitude applies in the plant, "There no such thing as good enough to us. It's going to be perfect and it's not just me, it's everyone from start to finish. We want to make the best cheese we can."

APPLY FOR THE WISCONSIN MASTER CHEESEMAKER® PROGRAM

The Wisconsin Master Cheesemaker® Program is accepting applications until May 15. To be considered for this elite program, applicants must be making cheese in a Wisconsin cheese plant, must have had their Wisconsin cheesemakers license for a minimum of 10 years, must have been producing the cheese they want to get certified in for at least 5 years and have taken an advanced cheesemaking and one elective short course specified by the Wisconsin Master Cheesemaker Board. Applicants also must have day to day involvement in the cheesemaking process and a fundamental knowledge of the entire cheesemaking production process. The involvement and knowledge requirements of each applicant will be assessed during the interview process. For more details, including an application, visit www.cdr.wisc.edu/master-cheesemakers

GENERAL TROUBLESHOOTING FOR DAIRY INGREDIENTS

Technical contributor: Nathan Price, CDR

A common inquiry the Center for Dairy Research (CDR) receives relates to troubleshooting issues with dairy products. Dairy manufacturers, like others, work on continuous improvement programs to produce the highest quality products possible. However, issues can and do occur, which require appropriate troubleshooting expertise.

While various methodologies are available to help direct the process, troubleshooting itself is a means to solve a problem by identifying the issue and then tracing and correcting faults in an operational system. It involves identifying and isolating the specific causes of an issue and subsequent implementation of corrective actions to prevent the issue from re-occurring. To perform effective troubleshooting, dairy manufacturers must have an understanding of a critical set of tools.

1. The composition and functionality of milk and dairy product.
2. The equipment and processes used during manufacture.
3. Analytical and sensory tools to help understand the problem.

Once a product has been manufactured, typically a specification sheet is generated that outlines the broad physical, chemical and microbial details. These determine whether a product has been made according to general industry safety and quality standards. If any of the parameters are out of specification, a troubleshooting investigation takes place.

However, quite often an issue is not identified until a product has been put into an application. A defect at this stage is usually due to an issue with functional properties. This can be prevented if a sound product evaluation is conducted on the dairy ingredient before the customer receives the product. It is essential to have a thorough understanding of your product and its functional properties prior to the end customer identifying problems with the ingredient.

Functionality and Troubleshooting

For dairy manufacturers, functionality is a physical property of the ingredient. This is a critical feature for customers who use dairy products across the entire food and beverage industry. Functional properties relate to how ingredients behave during preparation and processing in terms of product quality. Any changes in these properties can result in performance defects and economic loss.

A key aspect of troubleshooting must involve accurately characterizing the functional properties of dairy products and relating them back to the manufacturing process.

Unfortunately, there are no universal, standard methods to quantify the functionality of dairy ingredients, unlike the major components found in milk (ex: fat and protein) for which standard methods have been developed and utilized for decades.

While many companies will have their own proprietary internal tests, the functional properties of dairy ingredients are not displayed on any technical data sheet.

A good general review of the various functionality tests used in industry can be found in the book Protein in Food Processing. Specifically, descriptions of these functionality tests can be found in *Chapter 1 "Testing Protein Functionality" written by Richard K. Owusu-Apenten, a professor at the University of Chester (Owusu-Apenten, R.K., 2004.)*.

Here at the CDR we are frequently asked to investigate dairy products and we run a variety of functional and analytical tests to home in on troubleshooting issues. Some functionality tests we utilize include emulsification capacity, rheological properties, water binding, gel strength, solubility, heat stability, and viscosity.

Analytical tests can be as simple as the degree of lactose hydrolysis or as complex as soluble calcium ion determination. Each test contributes to understanding how and why dairy products perform and interact with other components in different food systems. A deviation from the expected product performance can be used to aid the troubleshooting process.

CDR's Nathan Price, Dairy Ingredients Coordinator & Susan Larson, Associate Researcher.

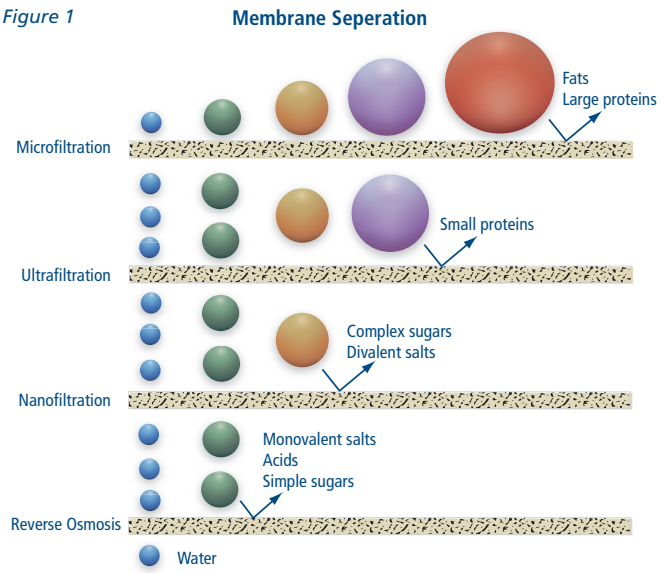
For example, diminished foaming ability in a WPI can be an indicator of heat denaturation during processing and require a review of the holding temperatures, dryer temperatures, etc. Additionally, excess fat in WPI can cause limited foaming along with issues during membrane processing. The composition and processing history are critical to understanding your product and how it will react in food formulations.

Composition and Analytics

A troubleshooting example that CDR has worked with in the past dealt with ultrafiltration (UF) performance on sweet whey and milk (Pipeline: Volume 27, Number 4, 2015). The goal of this work was to optimize economic performance by limiting protein leakage into the permeate and identifying points at which to change UF membranes.

To accomplish this, a comprehensive monitoring program and testing protocol to determine how membrane efficiency changes throughout their lifespan was conducted. Balancing the cost of membrane replacement versus loss of protein to permeate is a difficult proposition and understanding how to properly analyze protein in UF streams is critical.

Figure 1



Various membrane filtration technologies utilized in the dairy industry to fractionate milks components. With membrane filtration two separate product streams are created a retentate, which contains components that are too large to pass the membrane pores, and a permeate containing the components that are small enough to pass through the membrane. UF concentrates milk proteins into the retentate while removing lactose and minerals into the permeate from the original milk stream.

UF membranes are utilized to concentrate milk proteins while removing lactose and minerals, which results in the production of protein concentrates. Protein that permeates the UF membrane leads to economic losses as the permeate streams have lower value than the protein concentrate.

The goal with UF is to retain all the protein from the feed material. A comprehensive understanding of the UF operating system and analytical testing was required for this type of troubleshooting. Milk contains non-protein (NPN), which permeates the UF membrane and is quantified as protein in the Kjeldahl protein method. Although the NPN is not true protein and does not have a high economic value as normal protein. True protein can be quantified with protein analysis by subtracting the NPN portion from the total protein content. If a high amount of true protein is observed in the UF permeate it is an indication that ill-performing elements need to be replaced in the UF operation. This will increase yield of protein concentrates and prevent loss of protein to the UF permeate stream.

The net effect of a clear understanding of dairy composition and analytical techniques are critical in any troubleshooting event and are also used to ensure efficient economical processing.

Summary

Having a logical understanding of product composition, functional properties and analysis options is fundamental to establishing troubleshooting and quality control procedures that provide manufacturers with sound performance data and insights.

Whichever troubleshooting methodology you use, you will still need strong support from analytical, operations, and your research and development team.

This will be the first of a multi-part series on troubleshooting of dairy ingredients where we will explore common troubleshooting question that we receive at the CDR related to dairy ingredients.

Resources

1. Owusu-Apenten, R.K., 2004. Testing protein functionality. Proteins in food processing, pp.217-244.
2. CDR Pipeline: Volume 27 Number 4, 2015 contact CDR for back issue.

2022 CHEESEEXPO

Global Technology for Dairy Processors

CHEESEEXPO 2022 | APRIL 12-15, 2022, MILWAUKEE, WISCONSIN

Join CDR and the Wisconsin Cheese Makers Association for CheeseExpo 2022 – the world's largest cheese and whey processing expo!

A gathering of over 4,000 cheese industry leaders, suppliers, marketers and more will gather to share information about the latest in cheese technology, new products, whey opportunities, product safety, marketing and additional issues affecting our industry.

Here is a look at the CDR technical sessions where staff will share information and expertise on important cheese-related topics. For more information, including registration, visit https://cheeseexpogo.org.

CheeseExpo CDR Technical Sessions

Hot Topics in Cheese Research

Wednesday, April 13, 9:15-11 AM, Room 202

Please join CDR cheese staff as we offer insight into recent research projects. We will discuss how CDR utilizes a toolbox approach, using various techniques and methods, to customize cheese functionality and shelf-life. One project demonstrates optimizing manufacturing efficiency when handling or converting cheese curd, and the other project looks at different options to extend cheese shelf life in some popular cheese varieties. Both options were already useful with COVID disruptions in the cheese supply chain and could be helpful in increasing cheese exports.

Moderator: Rodrigo Ibáñez Alfaro, Associate Scientist, CDR

Speakers: Rani Govindasamy-Lucey, Ph.D Distinguished Scientist, CDR; Hong Jiang, Researcher, CDR; Luis A. Jiménez-Maroto, Cheese Industry and Applications Assistant Coordinator, CDR

Cheese Technology for Artisan Cheese Manufacturers

Wednesday, April 13, 9:15-11 AM, Room 101

Join us for this Artisan Track session where we will explore and learn about the cheese technologies available for artisan manufacturers. Well known equipment manufacturers and industry experts will discuss traditional and new technologies in cheese manufacturing equipment, including manual and automated systems, air handling systems for aging rooms, finished cheese cutting and packaging equipment, as well as specialty packaging films and ripening papers for surface ripened cheeses.

Moderator: Andy Johnson, Cheese Industry & Applications Assistant Coordinator and Wisconsin Master Cheesemaker® Program Coordinator, CDR

Exploring Automation and Artisan Cheese Manufacturing Equipment - Pere Cullell, Tecnical, Spain; Amelie Curis, Fromagex, Canada

Understanding and Reviewing Current Technology of Plastic Cheese Molds - Miguel Rolo, Busqui, Spain

Creating the Correct Aging Room Environment for your Cheeses - Frédéric Lafforgue, Air Quality Process, France; Séverine Dolci, Air Quality Process, France

Technical Considerations for Packaging your Surface Ripened Cheese - Philippe Beyssier, Brodart, France

Cheese Cutting and Packaging Equipment Solutions for the Artisan - Marty Juneau, HART Design & Manufacturing, USA

Overview of Technologies at the Center for Dairy Research - Andy Johnson, CDR, USA

Hot Topics in Food Safety Success

Thursday, April 14, 9:30 AM-12 PM, Room 201

The Innovation Center for U.S. Dairy and CDR will lead three informative Dairy Food Safety sessions 1) How to Build/Improve your Food Safety Culture, 2) Best Practices in Foreign Material Controls*, and 3) Recent Research finding in the control of Listeria.

Moderator: Tim Stubbs, SVP Food Safety and Product Research, Innovation Center for U.S. Dairy

*The Best Practices in Foreign Material Controls presentation will include Alex O'Brien, Food Safety & Quality Coordinator, CDR.

Hot Topics in Quality Cheesemaking

Thursday, April 14, 9:30 AM-12 PM, Room 202

CDR will breakdown a range of topics that challenge consistent production of high-quality cheese. Quality challenges include bitterness, acidity and calcium lactate crystal formation in aged cheeses, bacteriophage growth and infection of starter cultures and salt brine management.

Moderator: Rodrigo Ibáñez Alfaro, Associate Scientist, CDR

Speakers: Dean Sommer, Cheese and Food Technologist, Center for Dairy Research; John Jaeggi, Cheese Industry and Applications Coordinator, Center for Dairy Research; Rebecca Hohlstein, Cheese Industry and Applications Assistant Coordinator, Center for Dairy Research

Creating an Effective Cheese Grading Program

Thursday, April 14, 9:30 AM-12 PM, Room 101

Moderator: Dean Sommer, Cheese & Food Technologist, CDR

Some Context: Cheese Grading and Why an Effective Program is Necessary - Dean Sommer, CDR

Grading Definitions and Methods - Mike Pederson, Chief Grader, Wisconsin Department of Agriculture, Trade and Consumer Protection

Aspirations: What Would Building an Effective Program Look Like? - Brandon Prochaska, Sensory Coordinator, CDR

Actions: Next Steps, Practical Considerations & Traps to Avoid - Brandon Prochaska, Sensory Coordinator, CDR

Closing Workshop: Hands on Grading Practice with Attendees

CDR'S MARK JOHNSON EARNS BABCOCK AWARD

Mark Johnson, CDR Assistant Director and Distinguished Scientist, has been awarded the 2022 Babcock Award by the Wisconsin Cheese Makers Association (WCMA).

The WCMA Babcock Award, named for Stephen Babcock, the famed agricultural chemist and University of Wisconsin professor, recognizes the contributions of those in education or affiliate organizations partnering with cheesemakers in the pursuit of dairy industry innovation and excellence. Johnson is being honored with the 2022 Babcock Award along with Paul Kindstedt who is a Professor of Food Science in the Department of Nutrition and Food Sciences at the University of Vermont.

"This is a wonderful honor and it has been a great privilege to serve the cheese industry in any way I can," Johnson said. "But it's a shared honor in that so many people have helped me through my journey. I hope I have lived up to their trust in me."

Johnson's research has been vital to the cheese industry, directly contributing to continued innovation. His work on the cheese related issues and his continued participation and leadership with regards to the dairy short courses has impacted the dairy industry in countless ways. His research efforts are always selfless, performing the necessary research and then transferring that knowledge directly to industry. He is internationally recognized as one of the World's leading dairy scientists and has earned numerous awards and honors within the dairy industry.

In 2013, Johnson was named a distinguished scientist by the University of Wisconsin-Madison. This is the highest title available to an academic staff member and is only bestowed upon those who have exhibited "unique and outstanding performance" in a chosen field and are recognized by their peers as an invaluable resource.

Johnson will be recognized at the 2022 WCMA Recognition Awards at Cheese Expo, April 14 in Milwaukee, Wisconsin. Other CDR staff members who have earned the Babcock Award include Marianne Smukowski and John Lucey.

CDR WELCOMES NEW EMPLOYEES

Tina Chorlton, Center Administrator

Tina has worked at the University of Wisconsin-Madison in a variety of roles, including Human Resources Manager in the College of Agricultural and Life Sciences (CALS) and the past 6 years as the Center Administrator for the Wisconsin IceCube Particle Astrophysics Center (WIPAC). In addition, she has a JD and MS from the university. As Center Administrator at CDR, Tina manages the day-to-day operations of the Center and work to advance its goals and priorities.

Patrick Cunniffe, Financial Specialist

As a Financial Specialist, Patrick helps assure that CDR financial administration and procurement are running smoothly. Patrick has an undergraduate degree from Marquette University and a master's degree in public administration from American University. He is excited to learn about CDR's role in the dairy industry and help improve financial-related workflows and processes at CDR.

Tracy Hanke, Administrative Director

Tracy comes to CDR with more than 27 years of experience at the Wisconsin State Laboratory of Hygiene where she most recently was the Operations Manager for the Environmental Health Division. As Administrative Director at CDR, Tracy coordinates external work agreements/contracts, tracks and reviews revenue generating activities, helps with strategic planning activities, manages the CDR Industry Team and research reports to funders, and, among other responsibilities, coordinates climate culture and staff development activities. Tracy is excited to help CDR move forward and manage and facilitate the Center's extensive research.

CDR GRADUATE STUDENTS RECEIVE NELSON-JAMESON SCHOLARSHIPS FOR THE ADVANCEMENT OF DAIRY FOOD SCIENCE

The Center for Dairy Research (CDR) and Nelson-Jameson are proud to announce that Maggie Becher and John Larsen have both been selected to receive the inaugural Nelson-Jameson Scholarships to advance dairy foods research being conducted by CDR. Maggie and John are graduate students in the Department of Food Science at the University of Wisconsin-Madison and are mentored by CDR scientists Rani Govindasamy-Lucey and Rodrigo Ibáñez, respectively.

Maggie is currently pursuing an M.S. degree and hopes to continue on for a Ph.D. in dairy chemistry and is researching string cheese and examining possible strategies to extend its shelf life. Her research involves looking at functional properties like stringiness as well as flavor changes during storage. In addition, Maggie is also researching how to extend the characteristic squeak of fresh Cheese Curds. Both projects have the potential to improve the quality of these products and expand their distribution.

John is also pursuing an M.S. degree and his research is studying a possible new source of late gas formation in cheese. The formation of biogenic amines produces carbon dioxide and is believed by CDR staff to be one cause of late gas formation in some cheeses. John is looking into what is causing this gas production and possible strategies to mitigate it, such as enzymes or adjunct cultures.

"These scholarships from Nelson-Jameson help support graduate students that are working on new innovations, and we know that more trained students are needed by the dairy industry for technical positions," said John Lucey, CDR Director. "We are delighted to partner with Nelson-Jameson on this initiative."

As part of the scholarship, both students can be awarded $10,000 over the course of two years. Nelson-Jameson established the scholarship in 2021 to support the advancement of dairy science knowledge at the University of Wisconsin-Madison that is being conducted by CDR staff/faculty.

"Nelson-Jameson is proud to continue to support the important work of the Center for Dairy Research and all they do for the industry," said Mat Bartowiak, Nelson-Jameson Director of Strategic Relationships. "There is great shared alignment in the pursuit of helping the industry to create safe, quality food, and seek out new innovations to push us collectively forward. We are excited to see what important work Maggie and John accomplish in their pathways towards careers in the industry."

Based in Marshfield, Wisconsin, Nelson-Jameson has been a trusted source of food and dairy processing supplies for over 70 years.

From left: Mat Bartowiak, Director of Strategic Relations, Nelson-Jameson; Adam Nelson, Chairman of the Board, Nelson-Jameson; Maggie Becher, University of Wisconsin-Madison graduate student; John Larsen, University of Wisconsin-Madison graduate student.

Special Thanks to Carmen Huston

Carmen Huston, CDR's Department Administrator, retired earlier this year after serving 31 years with the Center. One of CDR's longest-serving employees, Carmen joined CDR in April 1991 as a fiscal clerk. Through the years, her career at CDR evolved until she eventually landed on her role as Department Administrator in which she performed a varying mixture of financial, administrative and personnel/payroll/HR responsibilities for the Center.

During Carmen's time at CDR, the Center grew significantly; adding staff and increasing its budget. Carmen managed budgets and funds from many sources, including state, gifts and grants. She also assisted staff in the preparation of budgets for grant proposal submission. Carmen worked closely with many departments on campus and developed a deep knowledge across campus departments and gained many friendships and connections.

"My 31 years at CDR has been a rewarding adventure," Carmen said. "Growing from 11 employees to now over 40, and still expanding, CDR is a great learning establishment. I always say that the staff at CDR is like a family. I really enjoyed my time at CDR and will miss everyone."

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Upcoming CDR Trainings

The Center for Dairy Research is here to help with dairy product training. Below is a listing of upcoming CDR short courses and other training opportunities.
World of Cheese (in-person) - April 26-29
HACCP Certification (in-person) - May 4-5
Advanced Cheese Technology (in-person) - May 9-13
Cheesemkaing Fundamentals (online, self-study) - May 18
Advanced Buttermaking (in-person) - June 14-16
Buttermakers License Apprenticeship (in-person) - June 20-24
For the latest information or to register visit www.cdr.wisc.edu/short-courses
Sign up to get updates on CDR Short Courses and Trainings sent to your email inbox - www.cdr.wisc.edu/cdr-short-courses-and-trainings-updates

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