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2024 WISCONSIN MASTER CHEESEMAKERS

The Center for Dairy Research (CDR) and Dairy Farmers of Wisconsin (DFW) are excited to announce the 2024 graduating class of the Wisconsin Master Cheesemaker[®] program. This year's class is the largest in the program's history with five new and five returning Master cheesemakers.

"The Class of 2024 graduating class is filled with highly skilled Wisconsin Master Cheesemakers," said John Jaeggi, program coordinator. "All 5 of our returning Masters have decades of cheesemaking experience in many different varieties. Our newest 5 Master graduates all hail from manufacturers who are amongst our specialty cheese leaders. We look forward to these new and returning Masters continuing to contribute to our program and our Wisconsin cheese industry into the future."

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 Cheesemaking 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.

Please join CDR and DFW in recognizing the 2024 Wisconsin Master Cheesemakers.

SARA GRIESBACH ➤ New Master Nasonville Dairy, Inc., Curtiss & Marshfield Certified Master: Cheddar and Monterey Jack



A part-time job in college set Sara Griesbach on the path to becoming a Wisconsin Master Cheesemaker.

"I went to school at UW-River Falls, and I actually applied for a job to just wash dishes," Griesbach remembers. "But then I got offered a job in the dairy plant as a freshman. So, I started making cheese."



For her next four years at UW-River Falls, she made cheese under Renee May, Food Science Professor and Dairy Pilot Plant Manager. After just one semester of making cheese as a student employee at the UW-River Falls dairy pilot plant, Griesbach decided to switch her major to Food Science with a Dairy Emphasis.

"I just really enjoyed the process," she said. "All the employees there were food science majors and minors, and they encouraged me to get into it."

After college, Griesbach worked at Foremost Farms for five years and has been at Nasonville Dairy for the last eight years. At Nasonville Dairy, she has a number of roles and responsibilities including developing new cheese formulations, grading cheese, and overseeing the quality department. Among other products, Nasonville Dairy is known for flavored cheeses. \Rightarrow

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"I'm kind of playing around with different spices and curd and seeing what works," she said. "We're getting spice samples from all different places and trying them out and developing different flavors in our cheeses. It's really fun."

This year, Griesbach joins the ranks of Wisconsin Master Cheesemakers with certifications in Cheddar and Monterey Jack, the two cheeses she has the most experience making. In addition, she often uses Monterey Jack in developing flavored cheeses.

"We sent out samples last week of a flavored Jack, and our customer wanted it at different heat levels, and they wanted a longer shelf life," she said. "So, we're always changing and adjusting the cheese."

Griesbach is only the third woman to complete the Wisconsin Master Cheesemaker[®] program. She said women in the industry, like her mentor Melissa Hoffman of Nelson-Jameson, have helped her get where she is today.

"There aren't too many women in the industry, that's for sure," she said. "It is hard work, but it's not so hard that women can't do it."

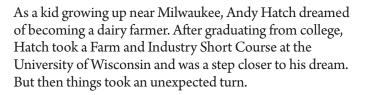
In addition, Griesbach and her husband operate a dairy farm. Griesbach, who grew up without any ties to cheese or dairy, is now fully immersed in the industry.

"The dairy industry is a big part of my family life now," she said. "We promote it; my husband and I both support it. It's a big part of our lives."

Now, as a Wisconsin Master Cheesemaker, Griesbach is one of the stalwarts in the industry. She said early on in her career as a cheesemaker that she had her eye on the Wisconsin Master Cheesemaker[®] program.

"It has always been a goal of mine because it's the next thing to strive for," she said. "We'll see what the next goal is."

ANDY HATCH ➤ New Master Uplands Cheese Company, Dodgeville Certified Master: Hard Surface Ripened Cheese



"While trying to figure out how to get into dairy farming, I kind of accidentally stumbled into cheesemaking," Hatch said. "I started making cheese at Babcock Hall with Gary Grossen."



It was a good place to start as Babcock Hall is the home of the University of Wisconsin's Department of Food Science and the Center for Dairy Research. In addition, Gary Grossen is a Wisconsin Master Cheesemaker. After making cheese at Babcock Hall, Hatch spent a couple of years abroad

in western and northern Europe, apprenticing with cheesemakers. When Hatch returned to Wisconsin, he finished his apprenticeship at Uplands Cheese near Dodgeville, eventually working his way up to head cheesemaker and then manager. Then, in 2014, he bought Uplands Cheese from Mike and Carol Gingrich.

Uplands Cheese was, and is, well known for its signature cheese – Pleasant Ridge Reserve. This award-winning Alpine-style cheese is produced with summer grass-fed milk from Uplands Cheese's own closed herd of cows. The cheese was developed by the Gingriches and staff at the CDR.

"When they [Gingriches] decided to make cheese, they asked the very smart question, 'We're grazing our cows and producing milk that is unusual. What's the best expression of that milk?" Hatch said. "John Jaeggi [CDR] and others coached them towards an Alpine-style cheese."

Today, Hatch continues the work that the Gingriches started – producing a unique Alpine-style cheese using unpasteurized milk from the farm's herd when it's on pasture.

"Regardless of what recipe you use, that approach to cheesemaking will always give you cheese that tastes like where it came from," Hatch said. "We're trying to make a cheese that tastes like our farm, not like Gruyère or Comté or Beaufort."

Hatch earned his Wisconsin Master Cheesemaker certification in Hard Surface Ripened Cheese (Pleasant Ridge Reserve). He said the Wisconsin Master Cheesemaker[®] program gave him an opportunity to learn more.

"I love taking classes and continuing my education," he said. "But I've never been able to convince myself to take 🟓

the time, so this was really useful in that it gave me an organized push back into formal education."

In addition to completing a required list of short courses, Master Cheesemaker candidates undergo plant visits, grading of their cheese samples, and they must complete a comprehensive written exam that requires multiple citations for each answer.

"The test was difficult," Hatch said. "It took me many hours. It was really useful in distilling a lot of knowledge that was spread across a bunch of different textbooks and sources."

Overall, Hatch said he is proud to join the ranks of Wisconsin Master Cheesemakers and to be a part of Wisconsin's dairy industry.



Front row: Brian Jackson, Sara Griesbach, Adam Buholzer, Andy Hatch, Aaron Quick Back row: Tony Hook, Michael Newman, Matt Erdley, Kirk Hansen, Jason Radke

"It's particularly meaningful to me because I wasn't born into it," Hatch said. "And I feel very grateful that the industry has supported someone like me...I've really been brought along by everyone else in this state, so I'm very grateful for that."

MICHAEL NEWMAN > New Master BelGioioso Cheese, Freedom Certified Master: Fresh Mozzarella



Hailing from the Upper Peninsula of Michigan, Newman didn't have cheesemaker on his radar for possible career choices. "There aren't dairy farmers up there, so there's no milk processing; nothing like that up there," he said.

But then, after graduating from college with a degree in criminal justice, he moved to Green Bay to look for



a job in his field. In the meantime, a friend helped him get a position at BelGioioso.

"I thought, 'Great, this will be a nice job to have while I'm looking for something in my field," Newman remembers. "Little did I know that now I was in my field."

Early on at BelGioioso, Newman was working the floor, working in the brine room and doing basic tasks like

flipping cheese wheels. After about four months, he was asked if he wanted to learn how to make cheese.

"I was really liking the work, and I was interested in the whole cheesemaking process, so I said, 'Heck yeah, I'd love to learn how to make cheese.' And that was it," he said. "As soon as I started to make cheese, I knew that was what I wanted to continue to do."

This year, Newman earned a Wisconsin Master Cheesemaker certification in Fresh Mozzarella. It is one of the main cheeses produced at the BelGioioso plant in Freedom where Newman is a cheesemaker.

"I really enjoy making Fresh Mozzarella because you can see the whole process through," he said. "What you do at the moment can affect the cheese right away. We're making Fresh Mozzarella, and it only takes a few hours to have it ready... It's really interesting to see it in real time and see how what you do impacts multiple things like taste and texture."

Newman said a couple of key mentors early on taught him core cheesemaking principles, helped him develop professionally, and passed on technical and scientific knowledge of cheesemaking. His first mentor was Mauro Rozzi, who was one of the original BelGioioso[®] cheesemakers.

"He taught me history of the company and some of the history of cheesemaking," Newman said. "He also taught 🟓

me how to be a leader and take ownership of what we're doing."

Another early mentor was Silvio Strada, a cheese technologist at BelGioioso. "He was really the one who taught me the technical and scientific side of cheesemaking," Newman said. "He also taught me how to collect data and how to use that data." Newman added that monitoring different data points is key to consistently producing high-quality cheese.

Now, as a Wisconsin Master Cheesemaker, Newman said he understands the responsibility of continuing to make a high-quality product that is expected of all Wisconsin Master Cheesemakers. In addition, Newman said that he enjoyed going through the program and completing all the courses and other requirements.

"It was a challenge," he said. "Even taking the final exam, it pushed you. It made you want to learn more. It definitely made me a better cheesemaker."

AARON QUICK > New Master Sartori Cheese, Antigo Certified Master: Asiago and Parmesan



Aaron Quick has been working at the Sartori Cheese plant in Antigo since he was 18.



"I've done every job in the plant except work in the micro lab," Aaron said. "I've worked in intake, in the whey department, in cheesemaking, and the starter room. I've done the drain table, and I've done brine."

This year, he is rounding out his experience and joining the ranks of Wisconsin Master Cheesemakers with certifications in Asiago and Parmesan.

Asiago is one of Aaron's favorite cheeses. Although they are no longer produced, some of his favorites were Sartori Cheese's Extra Aged Asiago and an Asiago with a salsaflavored rub. "It tasted almost like pizza," he said.

As is evident from Sartori Cheese's list of unique and award-winning cheeses, the company encourages the creativity of its cheesemakers. Now retired Wisconsin Master Cheesemaker Mike Matucheski developed BellaVitano[®] when he was at Sartori Cheese. Pam Hodgson, also a Wisconsin Master Cheesemaker, developed MontAmoré[®] Cheddar. Aaron said he would also like to invent a new cheese.

"I'm sure every cheesemaker wants to do that," he said. "Maybe it would be something flavored with a rub or soak. To be able to say, 'I did that.' I think that's so neat."

Sartori Cheese has also encouraged its cheesemakers to learn more and pursue the Wisconsin Master Cheesemaker® program. In addition to Aaron and Hodgson, Sartori Cheese also has another Wisconsin Master Cheesemaker in Ken Kane.

Earlier in his career, Aaron worked with Matucheski, who was always interested in developing and tinkering with different cheese recipes and formulations.

"I would ask him questions, and he would explain to me how to do this and how to do that," Aaron said.

One of the benefits of going through the Wisconsin Master Cheesemaker[®] program is diving into more of the science and technical aspects of cheesemaking. Aaron said he enjoyed taking the courses required to graduate from the program.

"You learn all kinds of stuff," Aaron said. "If I cut it sooner, I'm going to get this, or if I cut it later, the cheese is going to be like this... I don't know why anyone wouldn't want to do the program."

Aaron is looking toward the possibility of getting certified in more cheeses, possibly in BellaVitano[®], Romano, or Fontina. To him, it's just about learning more, "The more you know, the better you are at your job."

JASON RADKE > New Master BelGioioso Cheese, Freedom Certified Master: Fresh Mozzarella and Ricotta



In some ways, Jason Radke said he feels like he was born to be a cheesemaker, "My grandparents



were cheesemakers. My great grandparents were cheesemakers. My dad was a milk hauler his entire life. My uncle was a farmer."

Radke has early memories of helping in his grandparents' cheese plant in Little Suamico making Colby longhorns. "It was

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one of those small factories where they made cheese on the first floor and the second floor was the living area," he said.

As a high school sophomore, he got a summer job at the BelGioioso plant in Pulaski washing hoops and moving Parmesan cheese in and out of the brine tanks. Radke went to college and continued to work at the cheese plant and, at some point during this time, he realized that he wanted to make a career in the dairy industry.

"I enjoyed working with dairy," he said. "I enjoyed working in the plants and being with the people."

Radke started an apprenticeship and got his cheesemakers license in 2010. By this time, he had moved to the BelGioioso plant, in Freedom and was making Fresh Mozzarella and Fontina. Then, a couple of years later, Fontina production was moved to another plant, and the Freedom plant began making Ricotta. Radke began to shadow the plant manager and learn as much about Ricotta as he could.

"I took it upon myself to know the most about Ricotta at this plant because I felt like it was my own," he said. "It was my job to step up and take that initiative."

This year, Radke joins the ranks of the Wisconsin Master Cheesemakers with certifications in Fresh Mozzarella and Ricotta. As a new Wisconsin Master Cheesemaker, Radke says he takes great pride in the cheese he produces.

"I like to be able to see the work that we put in," he said. "It's the satisfaction of going to the store and looking through the cheese section and seeing cheeses we made."

He also is an advocate of his Ricotta, which he says can be an underappreciated cheese.

"It's great in pancakes. It's great with pasta. Cannolis are fantastic," he said. "I definitely take pride in it and push it amongst my siblings."

Looking back, Radke said it's hard to pick one mentor. "My dad worked as a milk hauler seven days a week, and my mom worked full time while raising myself and my three siblings," he said. "They taught me how to work hard, and they were always there for us."

Radke credits his wife and three kids for their support as he worked his way through the Wisconsin Master Cheesemaker® program. He added that he is also very grateful that BelGioioso® gave him the opportunity to complete the program. Other mentors come from the long list of BelGioioso Wisconsin Master Cheesemakers, including Dan Szczepanski, Jeff Allen, Jonathan Stender, Josh Krause, Randy Krahenbuhl, Steve Bierhals, and Gianni Toffolon (retired).

"I've been able to spend time with and learn things from all of those guys," Radke said. "They've all been integral to helping me develop as a cheesemaker."

When he's not trading notes with other accomplished cheesemakers, he can always turn to his cheesemaking family.

"My grandma is 93 years old, and I can still go to her house and talk cheese with her," he said. "Some of the things they did back then are still some of the same things that we do today. It's really cool to have that connection."

ADAM BUHOLZER > Returning Master Klondike Cheese Company, Monroe Certified Master: Brick and Gouda

A fourth-generation cheesemaker, Adam Buholzer of Klondike Cheese Company is earning Wisconsin Master Cheesemaker certifications in Brick and Gouda. He also has certifications in Feta and Havarti.

In 1923, Adam's great-grandparents immigrated from Switzerland and began making cheese in southern Wisconsin. He grew up in the family business.



"I started working after school some at the factory," he said. "As I got older, I worked before school and then on Saturdays, too and I got my feet wet that way."

His dad, Steve Buholzer, also a Wisconsin Master Cheesemaker, encouraged Adam to find his passion outside of the family business, which

led Adam to graduate from the University of Wisconsin-Madison with a degree in chemical engineering. After college, he worked for a year in the chemical engineering field, but around the same time, the family cheese plant was about to undergo a big expansion.

"It seemed like the perfect time to come back as we were just about to expand and automate our Feta production. So, I came back full time, and I've been here ever since," Adam said. "It's been a great ride. I really love what I do and feel fortunate that I've been able to be a part of it." \Rightarrow Klondike Cheese Company has undergone several expansions, including adding a Greek yogurt line, increasing its Feta production, and automating the semi-soft cheese plant. Adam oversees the Greek yogurt production and helps his father, Steve, oversee cheesemaking, milk procurement, and whey processing.

As a cheesemaker, Adam said he enjoys the entire process of consistently producing high quality cheese.

"First of all, you have to start with a really good and proven recipe, and that can take time, but once you get it, that's just the beginning," he said. "Things have gotten more automated; you can have better control and less chance of something going awry from a control side, but you still have to have that dedication to quality. Cheese is still a living, breathing thing."

Adam said he is excited to earn a certification in Gouda this year along with Matt Erdley. They are the first Wisconsin Master Cheesemakers at Klondike Cheese Company with certifications in Gouda.

"We're really excited to add that to our Master cheeses," Adam said. "Gouda seems to be a cheese that continues to grow in popularity."

In total, Klondike Cheese Company has five Wisconsin Master Cheesemakers – Adam Buholzer, Dave Buholzer, Ron Buholzer, Steve Buholzer, and Matt Erdley. Adam said his father, Steve, continues to be a mentor.

"It's been great," Adam said. "He's always been super hands-on and still is today. He believes in the quality aspect of making sure we're working hard to put the best cheese out there."

Adam said he is proud to be a Wisconsin Master Cheesemaker and part of the state's cheese industry and heritage.

"Wisconsin really prides itself on making the world's best cheese, and to be part of that as a Master with the other Masters making famous Wisconsin cheeses, it's just a great honor and a great group of people to be with."

MATT ERDLEY > Returning Master Klondike Cheese Company, Monroe Certified Master: Gouda and Havarti



For Matt Erdley, love and family are at the heart of his passion for cheesemaking. After meeting his

wife, Melissa, who is a part of the fourth-generation family business at Klondike Cheese Company in Monroe, Wisconsin, Erdley found his true calling as a cheesemaker.



"I thought I'd try it out for a little bit and see if it worked," he said. "Well, I stayed."

Prior to joining Klondike Cheese Company, Erdley found that his previous work as a mechanical engineer designing industrial tools came in handy as he

harnessed the similarities between the two fields to the very different arena of cheesemaking. He'd found his new path.

"The manufacturing principles are still the same, just a different application," he said. "Right away, I wanted to get on board and got started with my apprenticeship."

Within a year of starting at Klondike Cheese Company, Erdley earned his Wisconsin cheesemaker license. He was impressed and inspired by the passion and commitment he saw in the three brothers – Steve, Dave and Ron Buholzer – who own and operate the plant.

"You can't ask for better resources than those three," Erdley said. "They've been doing it for so long, the wealth of knowledge they have is incredible. They set a good foundation for where to go."

Erdley has been at Klondike Cheese Company for 22 years and is adding Wisconsin Master Cheesemaker certifications in Gouda and Havarti to his previous certifications in Brick and Muenster. Gouda is a relatively new product for Klondike Cheese Company.

"We worked with the CDR, asked some questions, and did some development work in small vats," Erdley said. "We tested different parameters to get what we wanted and ended up with a product that we're happy with and proud of."

Erdley also enjoys the constant adjusting and fine-tuning involved in cheesemaking. He remembers one recent example where a customer requested a certain make of Havarti with a specific flavor profile.

"We were adjusting fat content and the culture sets just to meet their expectations," Erdley said. "That's part of the fun of cheesemaking." →

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As a Wisconsin Master Cheesemaker, Erdley said he wants to continue to uphold the high standard and focus on detail that the Buholzers and others have taught him.

"The product that you make represents the company, it represents the farmers, and it represents the state," he said. "We want to put out products that we're proud of."

Overall, Erdley said he has enjoyed going through the Wisconsin Master Cheesemaker® program.

"I think that the program is just a fantastic resource to continue to drive the art and science of cheesemaking and to make better and better products to highlight this wonderful resource we have here, which is the dairy and milk. You can't say enough about it."

KIRK HANSEN > Returning Master Nasonville Dairy, Inc., Marshfield Certified Master: Asiago and Cheese Curds

As a junior in high school, Kirk Hansen drove up the road from his family's farm to the local cheese plant, looking for a job. That plant was Nasonville Dairy, which is owned and operated by the Heiman family.

"I was filling out the application, and Ken [Heiman] looked over my shoulder and saw my name and he said, "You're Roger's boy?' I said, 'Yes.' And Ken said, 'Well, can you start Monday?' And that was that."

Hansen started with entry level tasks like packaging and shoveling curd into hoops. "It was a real eye-opener for me because I didn't know how cheese was made," he said. However, it wasn't long until he began filling in on the

cheesemaking side. Then, in 2006, Hansen



earned his Wisconsin cheesemaker license.

He remembers going to Madison to take a course as part of the licensing process and seeing a pamphlet about the Wisconsin Master Cheesemaker® program.

"I got the pamphlet, and I looked at it and thought, 'That's never going to happen,'" Hansen said with a laugh.

Now, with almost 30 years in the industry, Hansen is earning his third and fourth certifications in the Wisconsin Master Cheesemaker[®] program. In 2021, he earned certifications in Cheddar and Monterey Jack, and this year, he is adding Asiago and Cheese Curds.

"Cheese Curds are kind of like my first love," Hansen said. "I remember as a kid coming to the plant and getting them. It was a special treat for us."

Graduating from the Wisconsin Master Cheesemaker[®] program is a point of pride for Hansen. To get a certification, cheesemakers need to complete a list of short courses and trainings (among other requirements), and he said the program helps further educate experienced cheesemakers.

"Every class I go to, I learn something new," Hansen said. "It's great to have that information from the courses to look back on. I sometimes have questions, and I go home and take out those books from the courses. Over the years, it's pretty much become a whole bookshelf."

Hansen sees his certifications in the program as a representation of years of hard work. He's also grateful for the networking opportunities and the chances to meet and talk with the other cheesemakers he's met.

"The program really showcases cheesemakers and represents the work they've done and the dedication they have," he said.

Hansen was excited for the ceremony where he, along with the other masters, were presented their medals. His wife, Brenda, his two sons, parents, and brother attended the graduation ceremony with him. This graduation is a point of pride.

"It's knowing you're making a good product," he said. "It's kind of a good pat on the back."

TONY HOOK > *Returning Master* Hook's Cheese Company, Inc., Mineral Point Certified Master: Cheddar



In 1987, Tony Hook, along with his wife, Julie, purchased their cheese plant in Mineral Point, Wisconsin. They had both been making cheese for many years, but their new plant in had a large cold storage area.

"At the time, we thought the cold storage area was bigger than what we needed for the cheeses we were making for distributors," Hook said. "So, we decided we'd get into some aging of Cheddars." The Hooks put racks in the cold storage facility and found it could hold about 500,000 pounds of



cheese, which was a lot for the size of their plant. At that time, not many other cheesemakers were aging Cheddar beyond two years. At first, the Hooks thought they would age their Cheddar for five years at the most.

"But we kept going to 7, 10, 12, 20 years," Hook said. "The very first batch that we had of 10-year was

available in 1999, and I think we were one of the first that had a 10-year Cheddar."

Then, in 2009, the Hooks released their first batch of 15year Cheddar.

"We started to get phone calls because it was in the Milwaukee Journal Sentinel, and all the papers and radio stations started to call," Hook remembers. "I had to leave the phone off the hook. I just couldn't get anything done."

That first batch of 15-year Cheddar was about 1,000 pounds, and it sold out in just a few days. Then, in 2015, the Hooks released their first batch of 20-year Cheddar. It was just 400 pounds and sold out before it was even released.

"Most people, when they try it, if they like aged Cheddar, they really like it," Hook said.

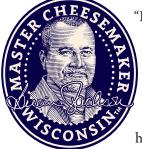
He points out that as Cheddar ages, its flavor and texture change." People ask about sharp Cheddars, and we tell them that at about three to five years, it is the most acidic. After that, it starts smoothing out," he said. "After about five years, it gets more calcium lactate crystals and still has a strong Cheddar flavor, but it doesn't have that acidy bite to it."

Hook says the 20-year Cheddar gets even creamier as the proteins in the cheese continue to break down, but he clarified that it still maintains some of its body even after 20 years. "If you cut it with a knife, it crumbles, but if you let it come to room temperature and cut it with a wire, you still can slice it."

Remarkably, Hook has been making Cheddar for over 50 years. He got his start in 1970 when he went to work for Bill Ienatsch at his cheese plant in Barneveld. Now, Hook is a certified Wisconsin Master Cheesemaker in Cheddar. Last year, he earned a certification in Blue Cheese.

BRIAN JACKSON > Returning Master Nasonville Dairy, Inc., Marshfield Certified Master: Cheese Curds and Queso Blanco

This year, Brian Jackson of Nasonville Dairy is earning his ninth and tenth certifications in the Wisconsin Master Cheesemaker® program. That makes him the second most decorated cheesemaker in the program after Bruce Workman who holds 13 certifications. This year, Jackson is earning certifications in Queso Blanco and Cheese Curds.



"I just kept with it," he said. "Six cheeses weren't enough; eight weren't enough. I think 10 is going to be it."

After almost 46 years in the dairy industry, Jackson said he is planning on hanging up his cheesemaking coat this year or

next. It all started when he was 16 years old and told his dad he wanted a car, "My dad said if I wanted a car, get a job."

Growing up in Greenwood, a small community in central Wisconsin, he found there weren't many options for work. He ended up at the local cheese plant and, later, when he got married and started a family, that job became a career.

The challenge of the Wisconsin Master Cheesemaker® program piqued Jackson's interest and pushed him to study the science behind cheesemaking. Another positive part of the program is the people that he has gotten to know.

"You learn a lot from it," he said. "It makes you aware of what's out there. You learn where you can go for answers."

In addition to his talents as a cheesemaker, Jackson also has a piece of art displayed at The Highground Veterans Memorial in Neillsville. The work is a large American flag painted on Wisconsin barn board with about 240 dog tags from service men who served during the Civil War and even up to current times.

"I was lying in bed one night, and it just popped in my head, and I started working on it," he said.

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CDR SENSORY SERVICES: A Good Investment

CDR Sensory Services can provide objective feedback and data on dairy products, which allows for data-based decision making. This is especially valuable when there is a significant potential risk, for example, deciding whether or not to launch a new product. Some companies may rely solely on opinions of internal staff like R&D scientists, marketing professionals or company leadership to make decisions without having objectively collected sensory data available. While it can be viewed as more cost-effective to forego generating structured sensory data, the cost is often a good investment especially when the decision being made has a large financial impact.

"The risk of it backfiring or missing something could be fairly significant depending on how large the change is," said CDR Sensory Services Coordinator Brandon Prochaska. "If it's a cost savings thing or a new product launch, there's a lot riding on that decision. Making the most of it with actual data can be really helpful."

For example, Prochaska said one client utilized CDR's consumer panel services. The company felt confident in the product but feedback from the consumer panel was clear that the color of the product didn't meet expectations. The company was able to use the data from the CDR consumer panel to adjust their product before it was launched and avoided a potentially devastating misstep.

Saving Employees' Time

Companies may opt to utilize their own staff to conduct internal sensory testing. When companies use only internal employees to conduct sensory testing, there is a risk that these employees have less time and are less effective at their regular duties. Prochaska said companies should consider a couple different aspects when considering whether or not to ask internal staff to be their sole sensory panelists.

A. Are the sensory results you're getting with an internal sensory panel valuable and meaningful to your customers? (i.e. are your results seen as objective and non-biased?)

B. Do your employees have enough time not only to evaluate products, but also participate in sensory training and calibration throughout the year? Or is the employees' time better spent doing other things?

Prochaska said sensory testing isn't cheap but oftentimes when he works with companies, he finds that some of the internal sensory analysis programs companies are using aren't as effective as they could be. One option would be to partner with CDR Sensory Services to free up the time of internal staff. The savings realized from the increased productivity could then easily pay for the periodic and on demand sensory testing CDR can provide.

CDR Sensory Services Tests Consumer Testing 2016

Consumer panels are conducted in CDR's newly constructed addition to Babcock Hall on the UW-Madison campus. Studies can be conducted in various formats including central location tests in CDR's 6 new

sensory booths, focus groups, or in-home use tests. Data is collected with the end goal of measuring preferences, degree of liking (hedonics) or consumer acceptance. Tests are conducted using CDR's diverse panelist database



of over 2,000 individuals from the Madison area. The list of consumer panelists continues to grow as CDR pulls from the greater Dane County area and University of Wisconsin-Madison (24,000 UW staff, about 50,000 UW students, and 570,000 Dane County residents).

Benefits:

Generate meaningful intelligence from consumers who actually purchase and enjoy that particular product or category.

Gauge likelihood of product acceptance and success of a new product or concept.

Inderstand what drives liking and purchase decisions in the retail environment.

Difference (Triangle) Testing 🦇

This type of testing answers the question whether or not a difference exists between two or more products. It statistically indicates whether the products are sufficiently similar, or significantly different. All testing is done under controlled conditions including the preparation, presentation, and the environment. This ensures the only variable coming into play is the samples themselves. →

Benefits:

 Statistically sound method to determine if overall difference exists between samples.

Simple methodology that is easy to understand and quick to execute.

 Uses panelists who are proven differentiators to ensure rigorous evaluation of the samples.
 Can find meaningful

data about the samples

consumer testing

with fewer panelists than



Descriptive Sensory Analysis 🔌

Descriptive sensory analysis offers a statistically robust method of identifying key attributes of a product or monitoring their changes over time. This is done using panelists who have been extensively trained to detect and quantify appearance, flavor, and texture attributes in an objective and repeatable manner. CDR's descriptive panel utilizes a hybrid of QDA and Spectrum methodology. CDR employs about 20 dedicated external descriptive panelists to ensure repeatable and quality results.



Benefits:

• Can evaluate a single product without need for references or controls.

 Can holistically compare several products across all attributes of the sensory experience.

 Statistically meaningful data, with quantifiable and repeatable scaling.

Methods allow for some comparison to previous and future tests using the same methods.

Purely objective measurement of characteristics with precisely controlled conditions.

Expert Screening 🦇

CDR dairy product experts, many of whom have judged at national and international competitions, can evaluate products to generate key insights. Thanks to their advanced expertise and years of experience in judging, they can also help in troubleshooting, identifying defects and suggesting areas of improvement for various products.



Benefits:

- Economical pricing.
- Relatively short lead time.

Offers contextual feedback beyond objective measurements such as potential manufacturing improvements, root causes of defects, or whether performance is typical.

New CDR Service - Shelf Life Studies 🔌

CDR now has three climate chambers that allow for CDR to conduct shelf life testing for dairy foods and beverages. The product is held in the chambers at a specified condition for a predetermined amount of time and then the product is evaluated using trained panelists periodically to determine what the shelf life for the product is. The chambers can control both temperature and humidity and can be programmed to carry out custom programming to simulate product abuse in the supply chain or accelerated shelf life conditions.

There are many potential benefits of conducting shelf life studies of a product. Prochaska said there are two common things that happen in food and beverage manufacturing. One is that if a company makes a product that is similar to another product, the manufacturer will use the same shelf life without

something with 4 weeks left).



manufacturer will use the <u>CDR Sensory Coordinator</u> same shelf life without validating their product. Of course, this is an economical solution but if a company can get an additional 10% or longer added to the shelf life of their product; that can add significant value. Extending shelf life can also be a source of product differentiation (i.e. someone not wanting to buy something with 2 weeks of shelf life, they want

In other cases, shelf life was perhaps established a long time ago and may be overdue to be re-validated. "Maybe you established the shelf life when the product ⇒



was first released and since then you've made umpteen formulation changes and it's made at a different plant now and the packaging was updated. So shelf life studies are valuable in validating your shelf life remains at least as good as it originally was and possibly even extending it out," Prochaska said.

CDR Shelf Life studies can provide data on what consumers think of their product at the end of their shelf life as well. This can be meaningful data and also an indicator of whether extending shelf life may be feasible. That can, in turn, provide more flexibility within the supply chain.

CDR's climate chambers are large (5.5 cubic feet) and can handle large formats like a 40 lbs block of cheese or large bags of dairy powders.

Working with CDR Sensory Services

CDR Sensory Services provide clients with valuable data and insights into how their products behave or are perceived. These "dividends" make the cost associated with sensory testing, truly a worthy investment to make.

"It can be the difference between a successful product launch and a failure," Prochaska said.

Smaller companies and/or entrepreneurs that are interested in employing CDR Sensory Services but may not have the funds to do so may qualify for a grant through the Dairy Business Innovation Alliance (DBIA). The DBIA's Dairy Business Builder Grant program is available to small-tomedium size farmers or processors aimed at diversifying onfarm activity, creating value-added products, and enhancing dairy by-products or export programs. Awards of up to \$100,000 in reimbursable grants will be made. For more information, visit https://www.cdr.wisc.edu/dbia

If you are interested in learning more about CDR Sensory Services, visit <u>https://www.cdr.wisc.edu/sensory</u>

If you are interested in getting a quote from CDR Sensory Services, visit. <u>https://www.cdr.wisc.edu/sensory-quote</u>

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Looking back at his long career, Jackson is proud of his accomplishments, especially his 10 certifications in the Wisconsin Master Cheesemaker® program. In addition to Queso Blanco and Cheese Curds, he has earned certifications in Asiago, Brick, Cheddar, Colby, Feta, Gouda, Monterey Jack, and Muenster.

"It's not something everyone can do," Jackson said. 🏶

CDR WELCOMES NEW EMPLOYEES

Andrea Luke, Administrative Director

Andrea serves as the administrative director for CDR, providing leadership for coordinating external work agreements, advancing staff development and



workplace culture activities, and strategic planning and implementation. She comes to CDR with six years in higher education administration including five years at the Staley School of Leadership at Kansas State University where she drove the

creation and implementation of critical operational processes and procedures. Her work focuses on increasing organizational effectiveness by investing in key stakeholders – faculty, staff, and students – and integrating a positive supportive work culture that leverages individual strengths to exceed organizational goals. Andrea holds a Master of Business Administration from Kansas State University and a Bachelor of Arts degree in business administration from Illinois Wesleyan University. She is the daughter of third generation dairy farmers and proud to contribute her skills and experience to the industry that provided so much for her family.

Ian Kozaczek, Cheesemaker

Ian has almost 10 years of experience working as a



cheesemonger in specialty cheese shops. For three years, he was manager of Fromagination, a specialty cheese shop located in Madison, Wisconsin. At CDR, Ian works in the raw room where he helps receive and process milk. After working as a cheesemonger,

Ian is excited to learn about the manufacturing side of the dairy industry.

ADDRESS SERVICE REQUESTED



Upcoming CDR Trainings

The Center for Dairy Research is here to help with dairy processing training. Below is a listing of upcoming CDR short courses and other training opportunities. Registration for the fall 2024 short courses will open in July.

- * Cheesemaking Fundamentals (self-study) June-September
- * Buttermaking Comprehensive (in-person) June 18-20
- * World of Cheese (in-person) August 27-30
- * Dairy Ingredient Fundamentals (in-person) September 10
- * Dairy Protein Beverage Application (in-person) September 11-12
- * Cheesemaking Fundamentals (in-person) September 17-18
- * Fundamentos de elaboración de queso (presencial) September 24-25
- * Advanced Cheesemaking: Italian-Style Cheeses (in-person) October 1-3
- * Advanced Sanitation (in-person) October 9-10
- * Environmental Monitoring (in-person) October 11
- * Cheese Grading (in-person) October 15-17
- * Advanced Cheesemaking: Artisan Cheese (in-person) October 22-25
- For the latest information or to register visit | cdr.wisc.edu/education





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