

Dairy Pipeline

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A Technical Resource for Dairy Manufacturers



THE CULTURE OF BULGARIAN CULTURES HOW CDR HELPED YOBUL® CREATOR TEDDY IVANOV BRING HIS BELOVED BULGARIAN YOGURT TO THE UNITED STATES.

Growing up in Bulgaria, Teddy Ivanov spent much of his time in the family kitchen helping his relatives to prepare meals, which often included homemade yogurt. Traditionally made from two ingredients, sheep milk and Bulgarian live cultures such as *Lactobacillus bulgaricus*, the yogurt was a staple in Ivanov's community. When Ivanov moved to the United States in the late 1990s to pursue a culinary program, however, he quickly found that the traditional yogurt he enjoyed nearly every day at home was impossible to find, so he decided to create his own.

A chef and entrepreneur, Ivanov is no stranger to the food industry. In fact, he opened a restaurant shortly after coming to the United States, followed by a catering company, which he still runs out of St. Louis, Missouri. Though he has created many innovative dishes throughout his twenty years in the industry, he always remained passionate about the creation of a traditional Bulgarian yogurt that could be sold in the United States. So, a few years ago, after selling his restaurant, Ivanov traveled to Bulgaria with his daughter and fiancé, where the entire family was able to sample the local yogurt. His family fell in love with the yogurt and convinced Ivanov that he needed to pursue his dream of bringing this yogurt to the masses back in the United States.

"After seeing the reaction that my fiancé and daughter had to the yogurt, I knew it could be the next big thing," said Ivanov.



Several Yobul® flavors are shown next to the traditional containers used to make Bulgarian yogurt.

When he returned from his trip, he began to research how to produce traditional Bulgarian yogurt here in the United States using authentic cultures such as *Lactobacillus bulgaricus*. He also began thinking about the type of milk he would use, how he would source it and what flavors would work best for his new line. It was around that time that Ivanov was introduced to KJ Burrington, the Dairy Ingredients, Cultured Products and Dairy Beverages Coordinator at the Center for Dairy Research (CDR).

Serving as a full-service research center, CDR offers clients access to expert advice and product development help as well as access to an applications kitchen, pilot plant, sensory services and more. In this case, Burrington worked with Ivanov to experiment with the flavor and overall textural impact of various milk combinations. They also ran a trial in the pilot plant and worked on nutrition labeling. →

“We were happy to help him try out cultures and make his product on a larger scale,” said Burrington.

For Ivanov this was an important step in perfecting his product, as CDR was able to help him achieve the traditional texture and flavor he wanted on a large scale. The partnership also provided him with a sounding board for ideas and support when he had questions about the process.

“Anytime I needed something, I could just call them,” said Ivanov of the CDR staff. “They are very helpful and friendly.”

After fine-tuning the flavors and running a larger trial at CDR, Ivanov decided on a selection of flavors and milk varieties for his final products, which were developed for his business, Balkan Treasures, LLC. The yogurt line, which he called **YoBul!**[®], includes seven, clean-label yogurts without added sugars that Ivanov believes pay homage to the traditional, homemade Bulgarian yogurt he so loved as a child, while introducing innovative and playful new flavors.

YoBul![®] is a product with a smooth and creamy texture that relies solely on the properties of milk,” said Burrington of the clean-label formulation. “We are working with more companies that are interested in developing yogurts without added stabilizers, such as starches and hydrocolloids, while also avoiding artificial sweeteners, colors and flavors in their yogurts. **YoBul!**[®] is a good example of one of those companies.”

Specifically, the line of **YoBul!**[®] yogurts includes a plain, six ounce yogurt made from milk from 100 percent pasture raised sheep and live active cultures, including *Lactobacillus bulgaricus*. It contains 180 calories, 15 grams of protein and 10 grams of fat per serving.

“Everyone will appreciate the plain; it tastes like home to me,” said Ivanov.

Additionally, **YoBul!**[®] has a line made from a blend of sheep and cow’s milk that includes flavors such as orange, coconut and raspberry. Each has 190 calories, 11 grams of protein and 10 grams of fat.

Ivanov has also developed a line made solely from cow’s milk, which includes flavors such as plain, coconut and rose, which is a nod to the national flower of Bulgaria. An inventive take on traditional yogurt, the rose flavor, made with Bulgarian rose extract, was a finalist in the 2017 World Dairy Innovation Award contest.

The cow’s milk yogurts are 160 calories per eight ounce serving, contain eight grams of protein and seven grams of fat. In all cases, Ivanov uses 100 percent organic Stevia as the sweetener and veggie juice as the colorant, in an attempt to create a clean label product that is as close to the traditional, homemade version as possible.

“We believe in a simple process where the culture is everything” said Ivanov. “It’s the way things should be done and it’s received a good reception.”

In fact, since launching the product about a year ago, **YoBul!**[®] has expanded its sales from Missouri to Illinois. It’s continuing to grow and is likely to expand to new markets soon according to Ivanov, but he’s not in a hurry.

“I don’t want to go fast,” said Ivanov. “I want to keep an eye on quality and honor the tradition of Bulgarian yogurt. Yogurt is a dietary staple in Bulgaria, it’s almost imprinted in our DNA and I wanted to bring that tradition here and introduce an old style with new world innovation.”

For more on **YoBul!**[®] please visit: www.balkantreasure.com

For more on CDR services and to see how CDR can help you, visit: www.cdr.wisc.edu 🍌



CDR & WEDC PARTNER TO SUPPORT INNOVATION IN THE DAIRY INDUSTRY

Promoting innovation and entrepreneurship within Wisconsin's \$43.4 billion dairy industry is a goal shared by the Center for Dairy Research (CDR) and the Wisconsin Economic Development Corporation (WEDC), who joined forces in 2013 to assist innovative Wisconsin dairy manufacturers through a \$200,000 reimbursable grant program. The grant, which allows companies in Wisconsin to apply for up to \$20,000, has assisted eleven companies in purchasing equipment that is needed for new products or processes as a result of CDR assistance. To date, this program has helped to create or retain 29 jobs in rural communities. This year, WEDC and CDR will join forces again to expand the program, with a second \$200,000 grant program beginning in 2018 and ending in 2020.

Companies interested in receiving up to \$20,000 from the reimbursable grant program are required to apply through the CDR Technology Transfer, University Research and Business Opportunity (TURBO) program. The TURBO program was launched to provide business assistance and technology transfer opportunities to dairy manufacturers and was originally funded through an i6 Challenge grant from the United States Department of Commerce. Those selected for the reimbursable grant must have an innovative product or process improvement idea that requires an equipment purchase, and must be working with CDR on the development of the technology or product. Companies must be located in Wisconsin and priority is given to smaller, rural companies who will see increased job retention or creation as a result of the grant.

“For more than 25 years, the Center for Dairy Research has been assisting the dairy industry with product development and technology transfer. We are particularly pleased to assist with and showcase the innovative pursuits of our rural Wisconsin communities,” said TURBO program manager Vic Grassman. “This grant program has allowed us to expand on that goal and the resulting job retention, creation and capital investment has ultimately benefited, not only the awardees but their local communities.”

Examples of companies and communities that have benefited from the grant include Yodelay Yogurt, a new, Swiss-style yogurt manufacturer located outside of Madison, Wisconsin. Owner and creator, Markus Candinas applied to the program to assist with the purchase of a homogenizer that would allow him to make this unique style of yogurt, which CDR helped to

develop. The equipment purchase helped Yodelay Yogurt to win first through fifth place in the Flavored Low-fat Yogurt category and first place in the Drinkable Yogurt Category at the 2018 World Championship Cheese Contest.

Similarly, Roelli Cheese Haus in Shullsburg, Wisconsin benefited from the reimbursable grant, which allowed the company to purchase equipment that could assist in the manufacture of their unique Havarti blue style cheese. Cedar Grove Cheese in Plain, Wisconsin also benefited from the grant as it allowed them to meet new standards for the manufacture of mozzarella cheese. A full list of the companies and communities who benefitted from this grant can be found below and conued on page 9.

Overall, the original \$200,000 grant has leveraged over \$2 million of private company investment, or about a 10 fold leverage by the individual companies. Additionally, the cost to create or retain jobs was around \$7,000 per job from this program, which is significantly less than the Federal grant average.



“From the beginning of the TURBO Program, WEDC has provided financial, marketing and networking support,” said Grassman. “We are thrilled to continue that relationship and know that this funding will provide new opportunities for WEDC and CDR to

work together to support small, dairy-related food and beverage companies in Wisconsin.”



Cedar Grove Cheese- Plain, WI- The grant allowed the company to buy equipment that would allow them to meet new standards for mozzarella cheese.



Chula Vista Cheese Company- Browntown, WI- The grant allowed the company to buy equipment that would perfect their innovative method of production for Oaxaca cheese.



Crave Brothers Farmstead- Waterloo, WI- The grant helped the company to purchase equipment that would allow them to meet new customer specifications.

Continued on page 9 →

2018 WISCONSIN MASTER CHEESEMAKERS

This year, the Wisconsin Master Cheesemaker® program will be honoring its 22nd class of cheesemakers. Established through joint sponsorship with the Center for Dairy Research (CDR) and the Wisconsin Milk Marketing Board (WMMB), this advanced education program provides a unique learning opportunity for experienced Wisconsin cheesemakers. The only program of its kind in the United States, the Wisconsin Master Cheesemaker® program will welcome six new Masters and one returning Master during a ceremony at the International Cheese Technology Expo banquet in Milwaukee, Wisconsin on April 19, 2018. Please join CDR and WMMB in celebrating the graduates and their many accomplishments.

NEW MASTER CHEESEMAKERS

RON BECHTOLT

Klondike Cheese, Monroe

Certified Master: Havarti & Muenster



Nearly two decades ago, Ron Bechtolt made his first vat of cheese. It was a life changing moment for Bechtolt, who found cheesemaking to be the challenging, artistic and fun career he had been searching for all along. In fact, all these years later, you can still find him making cheese at Klondike Cheese Company in Monroe, Wisconsin,



where he made his very first vat. But, now, thanks to his years of hard work and dedication, he is a Wisconsin Master Cheesemaker and proudly displays that mark of quality on the cheeses he makes. A great honor, Bechtolt, is just one of a few dozen elite cheesemakers who have completed

the robust Wisconsin Master Cheesemaker® program through the Wisconsin Milk Marketing Board (WMMB) and the Center for Dairy Research (CDR).

“The thing I like most about cheesemaking is that you never stop learning,” said Bechtolt. “It’s a challenge and

I’ve always liked a challenge. There’s no such thing as a perfect cheese, but it’s fun to try to find that balance and attempt to make that perfect cheese.”

It was that pursuit of perfection that inspired Bechtolt to apply to the Wisconsin Master Cheesemaker® program, which offers experienced cheesemakers the opportunity to further their education through courses at CDR. Participants must also participate in quality checks and complete a detailed test that takes most participants around 60 hours to finish. The Master certification process generally takes three years, but in the end, the cheesemaker will receive the honor and respect that comes with this accomplishment as well as the right to use the Master Mark® on his or her products.

“It’s everything that CDR, other students and the entire industry contribute to the program that have made it what it is and what makes Wisconsin so great,” Bechtolt said. “There’s always new classes offered and I want to continue to learn.”

In particular, Bechtolt feels the education has allowed him to make the best quality cheese possible, which he says is at the heart of the Klondike Cheese Company’s success.

“We have a lot of pride in our quality cheese,” said Bechtolt, who will officially receive his Master certification in Havarti and Muenster on April 19th at the International Cheese Technology Expo (ICTE) in Milwaukee, Wisconsin. “To be able to use the Master seal is a sign of high quality cheese and it’s an honor to be able to show what it means to be a Master.”

MATT ERDLEY

Klondike Cheese, Monroe

Certified Master: Brick & Muenster



For Matt Erdley, love and family are at the heart of his passion for cheesemaking. In fact, he began his career as a Mechanical Engineer, but 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.

“It’s a challenge and a joy,” said Erdley of cheesemaking. “There’s always a new skill to develop or a new learning experience.”



While Erdley has been working at Klondike Cheese Company for nearly two decades, he still thinks back to the early days when Klondike owners and Wisconsin Master Cheesemakers Ron, Dave and Steve Buholzer helped him to hone his cheesemaking

skills. Today, Erdley is proud to follow in the footsteps of his teachers and officially join the ranks of the Wisconsin Master Cheesemakers.

Administered by the Wisconsin Milk Marketing Board (WMMB) and the Center for Dairy Research (CDR), the Wisconsin Master Cheesemaker® program is the only one of its kind in the United States. The program requires cheesemakers to be a Wisconsin licensed cheesemaker for a minimum of 10 years. Qualifying cheesemakers must also take several courses through the Center for Dairy Research, participate in quality checks and complete a detailed test that takes most participants around 60 hours to finish. The entire Master certification process generally takes three years, but in the end, the cheesemaker will receive the honor and respect that comes with this accomplishment as well as the right to use the Master Mark® on his or her products.

“Being a part of the program means being surrounded by gifted cheesemakers, getting recognition for the skills you have and pushing yourself,” said Erdley, who will receive his Master certification in Muenster and Brick on April 19th at the International Cheese Technology Expo (ICTE) in Milwaukee, Wisconsin. “When you’re surrounded by people who care about their work, it becomes a part of your culture and that’s what we have in Wisconsin and particularly at Klondike.”

For Erdley, the education aspect of the program was key, as he stated that the courses and support through CDR, WMMB and the Wisconsin Cheese Makers Association have been integral to the success of the Klondike business.

“Through these programs we are able to bring back what we’ve learned and see how we can improve, maintain quality and exceed our standards,” said Erdley. “It’s all about quality at Klondike and to be able to showcase that quality through the Master program and get the recognition for the business is an honor. I’m so grateful for all that the Buholzer family has done to help me.”

LARRY HARRIS

Meister Cheese, Muscoda

Certified Master: Monterey Jack & Cheddar



Growing up around cheesemaking, Larry Harris naturally gravitated towards a career in the industry. At sixteen he began his first part-time job in a cheese plant and after attending courses at a local technical school, he began full-time at Meister Cheese in Muscoda, Wisconsin, where he still works today.

“I often tell those who apply for a job here that I can’t offer a job, I can only offer a career,” Harris said. “Cheesemaking is a lifestyle, not just a job.”

For Harris, who has worked at Meister cheese for more than thirty years and is now the Director of Operations, his passion for the industry runs deep and is rooted in the respect he has for all of those who came before him. In fact, his desire to honor his peers is part of the reason he decided to apply for the Wisconsin Master Cheesemaker® program.

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This year, Harris will receive his Master certifications in Monterey Jack and Cheddar on April 19th at the International Cheese Technology Expo (ICTE) in Milwaukee, Wisconsin and he is honored to join the ranks of the State’s top cheesemakers. →

“It’s about honoring peers and trying to stand with an elite group,” Harris said of the program. “I’ve enjoyed the fact that the program challenged me and made me think about why I do things. It made my base stronger.”

Harris is also hoping to honor his colleagues as well as the Meister family, who just celebrated their 100th anniversary as owners of Meister Cheese, as he says their support has made this possible.

“Cheesemaking is hard work, but there’s something about the relationships with people and the family oriented atmosphere at Meister. I’m looking forward to being a resource for people here and being able to consult on different boards,” said Harris. “I may also get certified in a few more cheeses.”

MATT HENZE

Decatur Dairy, Brodhead

Certified Master: Muenster & Havarti



For first generation Wisconsin cheesemaker Matt Henze, it all started in 2003 when he joined the team at Decatur Dairy in Brodhead, Wisconsin. A member of the packaging group, he soon became enamored with cheesemaking and decided to ask Decatur Dairy owner and Wisconsin Master Cheesemaker Steve Stettler to teach him how to make cheese.

“There was just something about the art of it,” said Henze. “I loved turning milk into something new and creating something that people could enjoy.”



Henze was honored to learn about cheesemaking from his mentor Stettler, and, along with years of advice from Babcock Hall cheesemaker and Wisconsin Master Cheesemaker Gary Grossen, Henze became the cheesemaker he is today. In fact, a few years ago Henze set out to join his mentor and Grossen in becoming a Wisconsin Master Cheesemaker.

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“Being a part of the Wisconsin Master Cheesemaker® program and having that title is an honor,” said Henze, who will receive his Master certification in Muenster and Havarti on April 19th at the International Cheese Technology Expo (ICTE) in Milwaukee, Wisconsin. “To be able to stand up there with the best in the state, and really, to be able to stand alongside cheesemakers like Steve and Gary, it means a lot.”

JEFF LeBEAU

Baker Cheese, St Cloud

Certified Master: Mozzarella



Jeff LeBeau began his career in Upper Michigan, working at a cheese factory part-time during high school. His job was in sanitation, but he soon moved into cheesemaking.

It was there that he found his passion, working with a variety of cheeses and growing to become a knowledgeable resource. Ready to explore everything the industry had to offer, LeBeau moved to Vermont, where he learned even



more working at an Italian cheese plant. Next, he moved to Wisconsin, where he worked in several plants before finding his niche as Cheese Operations Manager at Baker Cheese, building on their long standing tradition of award winning mozzarella string cheese. There, with the support of the Baker family, he decided to apply to become a Wisconsin Master Cheesemaker.

“I knew for many years that I wanted to become a Master,” said LeBeau. “But it wasn’t the right time until I →

came to Bakers and they brought the idea to me. That was a great honor.”

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“The program is very informative,” said LeBeau, who will receive his certification in Mozzarella cheese on April 19th at the International Cheese Technology Expo (ICTE) in Milwaukee, Wisconsin. “I found the classes challenging, but I enjoyed continuing to learn and developing new skills.”

LeBeau hopes that his certification will allow him to become a mentor for others and serve as an acknowledgement of the quality cheese produced at Baker.

“The Baker Cheese family has provided support and encouragement during the pursuit of my Master’s license,” said LeBeau. “I hope to return the favor by working with new cheesemakers to pass on the knowledge I’ve gained and encourage others to enter the Master Program and take full advantage of the excellent programs offered through the University of Wisconsin and the Center for Dairy Research.”

DAVE NEWMAN

Arla Foods, Kaukauna

Certified Master: Gouda & Havarti



After starting his career at an auto body shop, Dave Newman happened upon a job at the White Clover Dairy plant in Kaukauna, Wisconsin, which is now Arla Foods. Originally working in intake, he became increasingly curious about cheesemaking, until one day when he decided to ask his colleagues to show him the ropes. Within a fairly short period of time, Newman was working as a cheesemaker and entering his cheeses into various competitions. In fact, the first year he entered his cheese into the Wisconsin State Fair Contest he won

first in Class 12, reduced fat or light cheeses. From there, Newman knew that cheesemaking was his calling and his mentor and colleague, Wisconsin Master Cheesemaker Duane Peterson, helped him to grow, encouraging him all along to join the ranks of the Wisconsin Master Cheesemaker® program.

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“Being a first generation cheesemaker, this is a big accomplishment and something I’ve been working towards for more than thirteen years,” said Newman, who will receive his Master certification in Gouda and Havarti on April 19th at the International Cheese Technology Expo (ICTE) in Milwaukee, Wisconsin.

For Newman, the decision to become a Wisconsin Master Cheesemaker was all about taking his cheesemaking skills to the next level and gaining new knowledge about the process.

“The program really got me into the microbiology of cheesemaking,” Newman said. “Listening to the staff at CDR, especially Mark Johnson, and seeing their passion for cheesemaking made me want to take it all in.”

In fact, Newman hopes to return to the program to gain certifications in several other cheeses. He said, “I just want to learn as much as I can.” ➔

RETURNING MASTER CHEESEMAKER

CHRIS ROELLI

Roelli Cheese Haus, Shullsburg
Certified Master: Blue & Alpine



For fourth generation cheesemaker Chris Roelli, the past few years have been a whirlwind. It began in 2006 when he celebrated the reopening his family's cheese plant, Roelli Cheese Haus in Shullsburg, Wisconsin. Then, in 2015 he completed his first Wisconsin Master Cheesemaker certification in Cheddar before going on to win Best of Show at the American Cheese Society's competition in 2016 for his Alpine style cheese, Little Mountain. This year, Roelli will add another item to his list of accomplishments as he completes two more certifications through the Wisconsin Master Cheesemaker® program.



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and complete a detailed test that takes most participants around 60 hours to finish. The entire Master certification process generally takes three years, but in the end, the cheesemaker will receive the honor and respect that comes with this accomplishment as well as the right to use the Master Mark® on his or her products.

“All in all it's made me a better cheesemaker,” said Roelli, who will receive his certification in blue style and alpine style cheeses on April 19th at the International Cheese Technology Expo (ICTE) in Milwaukee, Wisconsin. “The program has helped me learn to pay attention to the details, problem solve and improve the quality of the product.”

In addition to continuing his education, Roelli also wanted to return to the Wisconsin Master Cheesemaker® program to honor the legacy of Little Mountain, the alpine cheese that made his plant famous.

“Having won awards for our Cheddar, blue and alpine style cheese speaks volumes for the Master program, since those are the cheeses I'm certified in,” said Roelli. “It's really come full circle.”

Roelli is busy working on his next step now, hoping to continue to grow his business and build value for the Wisconsin cheese industry through Roelli Cheese Haus. Even through all of the excitement over the years, he still takes time to reflect on what this would mean to the generations of cheesemakers that came before him including, his great-grandfather who came from Switzerland to make cheese in Wisconsin as well as Roelli's grandfather, Walter and his father, Dave, who taught him everything he knows about cheesemaking.

“My childhood was spent in cheesemaking,” said Roelli. “And to get to make a career out of what I love to do is a treat.” 🍌

NEW DAIRY INGREDIENT INFORMATION AVAILABLE IN THE 2ND EDITION OF THE DAIRY INGREDIENT HANDBOOK

Shared with more than 2,000 industry members around the world, the original Dried Dairy Ingredients handbook has served as the easy to read guide to dairy ingredients for many years. Last year, CDR launched the 2nd edition of this book with

more than 40 pages of new material including expanded flowcharts and new ingredient information.

Developed by CDR dairy processing researcher, Karen Smith, Ph.D., the handbook is available on the CDR Insider for CDR Industry Team (CIT) members and Wisconsin manufacturers. Those outside of Wisconsin who are interested in a copy of this handbook should contact Dr. Smith at smith@cdr.wisc.edu 🍌

INDUSTRY
REMINDER





Dairyvative Technologies- Markesan, WI-
The grant allowed the company to purchase equipment that would assist in the manufacture of their unique concentrated milk.



LaClare Farm Specialties- Malone, WI-
The grant allowed the company to purchase equipment for the manufacturer of their new, Cupola, Parrano-style cheese.



Muscoda Protein Products- Muscoda, WI-
The grant allowed the company to purchase equipment that would allow for process improvement.



Nasonville Dairy, Inc.-Marshfield, WI-
The grant allowed the company to purchase equipment that aided in the manufacture of their unique Queso Cincho cheese.



Roelli Cheese Co.- Shullsburg, WI- The grant allowed the company to purchase equipment that aided in the manufacture of their Havarti Blue cheese



Silver Lewis Cheese CO-OP- Monticello, WI-
The grant allowed the company to purchase equipment that aided in the manufacture of their Lori- Armenian-style cheese.



Union Star Cheese- Fremont, WI- The grant allowed the company to purchase equipment that aided in the manufacture of their Alpine-style cheese.



Yodelay Yogurt- Madison, WI- The grant allowed the company to purchase equipment that aided in the manufacture of their Swiss-style yogurt. 🍌

PREPARE YOUR DAIRY PLANT WORKERS TO BECOME LEADERS

The **Certificate in Dairy Processing** is a dairy industry training program focused on providing promising plant workers and operators with a clear understanding of dairy plant processes, and a greater ability to problem solve. Taught by the Center for Dairy Research staff, this course offers a practical applications approach to learning the various aspects of dairy processing including:

- Milk chemistry
- Food safety
- Processing equipment
- Whey production and handling
- Ingredients used in dairy production
- Production of dairy products; cheese
- Converting, packaging, ripening
- Sanitation



This blended course begins with a hands-on session at the CDR followed by 10 weeks of online interactive lectures, additional readings and a short final project. In addition, participants select a mentor that can assist them during the course.

“I learned more about our industry during the course than I have over the last year. It was truly an excellent learning experience.” Past Participant

Mentors have shared that they have seen great improvement and growth among participants in the

course. ***“This course helped my employee to become more engaged and have a better understanding of the challenges we face every day.” Past Mentor***

This course is open to all dairy plant employees, but class size is limited to 30. The 12-week certificate program costs \$1000 per student; \$900 per student if a company registers five or more attendees in one year.

CDR offers The Certificate in Dairy Processing each January, May & August. The next course will begin May 3rd. To register go to : www.cdr.wisc.edu/shortcourses
Program Coordinator: Dr. Don Otter | dotter@cdr.wisc.edu 🍌

CONGRATULATIONS TO ALL THE WINNERS



WORLD CHAMPIONSHIP CHEESE CONTEST
MORONA TERRACE CONVENTION CENTER
MADISON, WISCONSIN, USA
MARCH 5-8
2018

Wisconsin dominates the 2018 World Championship Cheese competition

 47 GOLD MEDALS	 51 SILVER MEDALS	 47 BRONZE MEDALS	 4 GOLD MEDALS
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49 Wisconsin cheese & dairy companies won one or more awards

Wisconsin Yogurt companies

Source: Wisconsin Cheese Makers Association, 2018; Total Awards

DR. JOHN LUCEY INDUCTED INTO LA GUILDE INTERNATIONALE DES FROMAGERS

Please join us in congratulating CDR Director John Lucey, Ph.D., on his recent induction into La Guilde Internationale des Fromagers, on March 5th, 2018. He joins more than 6,000 Guilde members who have been selected over the years for their know-how and respect for the tradition of cheesemaking. 🍷



Cathy Strange, John Lucey, Roland Barthelemy, Andy Hatch © Cheese Reporter

DAIRY INGREDIENT AND YOGURT APPLICATION MONOGRAPHS NOW AVAILABLE

Recently, the U.S. Dairy Export Council (USDEC) and the National Dairy Council (NDC) partnered with experts, including CDR staff, to develop a Beverage Application Monograph and a Yogurt Application Monograph, which are available for free at www.thinkusadairy.org and at www.cdr.wisc.edu/ingredients/resources.

Published in December 2017, both monographs offer product definitions, defect solutions, functionality information, compositional information and more.

U.S. Dairy Ingredients in Yogurt and Yogurt Beverages:

Developed with the help of a number of experts including, CDR Dairy Ingredients, Beverages and Cultured Products Coordinator K.J. Burrington, CDR Associate Research Specialist Hong Jiang and CDR Director, John Lucey, Ph.D., this monograph explores the use of dairy ingredients such as sweet whey powder, whey protein concentrate, whey protein isolate, ultrafiltered milk and more in yogurt. Highlighting the impact each ingredient has on flavor, texture and nutritional composition, this



monograph will assist companies in determining which ingredient is right for their particular application goals. Additionally, the monograph outlines the most common defects in yogurt applications while offering solutions that can help companies to remedy each particular defect.

U.S. Dairy Proteins and Permeates in Ready-to-Drink Beverages:

Developed with the help of experts Steve Rittmanic, a beverage consultant, CDR Dairy Ingredients, Beverages and Cultured Products Coordinator K.J. Burrington and CDR Associate Research Specialist Hong Jiang, this monograph highlights what you need to know to formulate and manufacture a ready-to-drink (RTD) product using dairy ingredients such as whey protein concentrate, whey protein isolate, micellar casein concentrate and more. From the environment needed to manufacture such products and the selection of packaging to hydration tips and sample beverage formulas, this monograph will assist companies looking to add RTD products to their line.



For more information, please contact communications@cdr.wisc.edu 🍷



Submitted by Debra Wendorf Boyke

Whether you're an artisan cheesemaker, making 640s, or working with whey proteins, you'll want to attend the CDR sponsored technical sessions at this year's International Cheese Technology Expo (ICTE), April 17-19 at the Wisconsin Center, Milwaukee, WI. We are offering a combination of CDR staff and industry guest speakers to help educate and engage you in the latest technology to help grow your business. This Expo is the world's largest gathering devoted solely to the multi-billion dollar market for cheese and related dairy products, and it is your chance to network with CDR staff as well as cheese manufacturers and suppliers from across the nation and around the world.

Check out the CDR sessions outlined below to find the best fit for you.

Wednesday, April 18 | 9:00 – 12:00 | Room 101

Artisan Track: Milk & Cheese Analytics Demystified

Artisan cheesemakers will enjoy this two-day limited enrollment education track, beginning with a discussion of challenges and opportunities of food safety, basic analytic tests that assure cheese safety and quality, as well as learning the basics of how to add a fresh cheese to your artisanal product line. (Limited Enrollment)

Day 1 Topics:

- ▶ **Food Safety at the Artisan level – Challenges and Opportunities**, Jim Mueller, Larry Bell
- ▶ **Milk and Cheese Analytics Demystified**
 - ▶ Setting Up an Analytical Testing Program, Zach Tollakson, Foreign Type Cheesemakers Assoc.
 - ▶ Special Issues: Milk and Cheese Testing. What to test for; Best practices/procedures for sampling cheese, Andy Johnson, Center for Dairy Research
- ▶ **The Basics of Fresh Cheese Manufacture**, John Jaeggi, Center for Dairy Research

11:30 – 5:00 | CDR Booth #925 - Trade show floor

Thursday, April 19 | 8:00 – 2:00

Artisan Cheesemakers Workshop, Clock Shadow Creamery

Day 2, Cheesemaking Lab: Learn from CDR cheesemakers while participating in this hands on cheesemaking lab where you'll have a chance to make Cagliata, Crescenza and Halloumi cheese, discuss opportunities with fresh cheeses, and interact with fellow artisanal cheesemakers.

9:30 – 12:00

CDR Whey Session, Room 101, Wisconsin Center Dairy Ingredients in the Global Food Market

Here's your opportunity to learn more about whey and milk proteins, and permeate, from the perspective of competing products and what the global marketplace is seeking.

- ▶ **Why is my permeate caking?** Dr. Karen Smith, Dairy Processing Technologist, CDR
- ▶ **Plant vs. Dairy proteins: Functionality and applications**, Kimberlee (KJ) Burrington, Coordinator, Dairy Ingredients, Cultured Products and Beverages, CDR
- ▶ **Plant vs. Dairy proteins: Nutrition attributes**, Dr. Matt Pikosky, Vice President, Nutrition Science and Partnerships, National Dairy Council
- ▶ **Dairy Foods: Are they part of a sustainable global dairy supply?** Dr. Frank Mitloehner, Professor and Air Quality Specialist, Cooperative Extension, Department of Animal Science, University of California, Davis

9:30 – 12:00

CDR Cheese Session, Room 202, Wisconsin Center Cheese Quality Issues and Solutions

CDR staff will lead this technical session on cheesemaking improvements perfect for cheesemakers everywhere. Bring your questions!

- ▶ **Making a better quality cheese using high solids milk**, John Jaeggi, Coordinator, Cheese and Industry Applications, CDR
- ▶ **Managing those challenging micro issues**, Dr. Mark Johnson, Assistant Director and Distinguished Scientist, CDR
- ▶ **Advancements in starter cultures and phage control**, Trish Dawson, Chr Hansen
- ▶ **Influence of starters and NSLAB on Texture and Flavor of Cheese**, Dr. Randall Thunell, Director of Research and Innovation, Cheese Cultures, Vivolac Cultures Corporation

11:30 – 4:00 | CDR Booth #925 - Trade show floor

6:00 – 8:00 | Banquet and Awarding of Class of 2018 Wisconsin Master Cheesemakers

Plan to join us in Milwaukee! For more information or to register please visit www.cheeseexpo.org 🍷



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Short Course Calendar:

- 📍 World of Cheese from Pasture to Plate, April 23-27
- 📍 Cleaning and Sanitation, May 1
- 📍 HACCP, May 2
- 📍 Certificate in Dairy Processing, May 3-July 26
- 📍 Applied Dairy Chemistry, May 8-9
- 📍 Cheese Grading, June 5-7
- 📍 Buttermakers Workshop, June 20-21
- 📍 Buttermaker Apprenticeship Workshop, June 25-29

For detailed information on each CDR short course:
www.cdr.wisc.edu/shortcourses

Events



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