

Spartan Dairy

Newsletter

Summer 2023 Vol.3 No.2



First MSU Dairy Industry Concentration Students Graduate

Michigan State University dairy education students participate in internal Dairy Challenge competition.

Overview of 2023 Great Lakes Regional Dairy Conference

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MSU dairy farm opens its doors to the Spartan community following tragedy

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Dairy at MSU



@DairyMsu



Dairy at MSU

MSU Dairy Education

MSU provides quality dairy education for future professionals

The Michigan State University (MSU) dairy education program continues to provide and expand upon a tradition of quality education for current and future MSU students. Through a variety of classes, events, and extra-curricular activities, students can learn hands-on skills and knowledge with support from skilled mentors.

In 2021, it was announced that students could choose to pursue the Dairy Industry Concentration as a specialization in the animal science degree program. The concentration focuses on the dairy industry and provides practical, hands-on skills and knowledge needed to succeed in many of the career opportunities that are available. The first class of Dairy Industry Concentration students graduated in the 2023 Spring Commencement: Mikayla Bowen, Emily Ockerman, Kelsey Pasch, and Brooke Voelker.

One activity that students can participate in is Dairy Challenge, which allows students to apply their knowledge to a real-life situation. Students tour



Left to right: Brooke Voelker, Mikayla Bowen, Emily Ockerman, and Kelsey Pasch.

a dairy operation to assess what the dairy does well and where they could improve, collaborate

with teammates to create recommendations, and present findings to a panel of judges. In December 2022, students participated in an internal competition at Sand Creek Dairy LLC in Hastings, Michigan. In late March, MSU students headed to Dutch Hollow Farm in Saratoga Springs, New York to compete in the National Dairy Challenge against students from across the nation. A team of Rachel Bosse, Emily Ockerman, Kelsey Pasch, and Drew Neyer placed second in the Dairy B division.



Front left to right: Emily Ockerman, Rachael Bosse.

Back: Drew Neyer, Kelsey Pasch. Photo courtesy of North American Intercollegiate Dairy Challenge.

To connect with future students, the MSU dairy education program invited high school students to attend the first MSU

Dairy Education Academy in March. Participants explored extra-curricular opportunities available, learned about dairy degree programs, and networked with MSU professors and students. Participants also toured the MSU Dairy Cattle Teaching and Research Center. The dairy education program is tentatively planning to host another MSU Dairy Education Academy in the fall.

MSU is working to build momentum in preparing students for successful and rewarding careers in the dairy industry.



Recipients of the 2022-23 Michigan Dairy Memorial and Scholarship Foundation scholarships. Photo courtesy of Sheila Burkhardt.

Dairy Spotlight

Zach Rutledge and Andres Contreras



Zach Rutledge:
Extension Economist

wages and employment opportunities of lower-skilled US-born workers. My current research efforts aim to document the prevalence of labor shortages in the agricultural sector and investigate solutions to the problem. I look forward to being a resource to Michigan's dairy community as I pursue research and outreach efforts to help resolve our state's labor challenges moving forward.

My favorite hobbies include hiking, camping, and talking on my GMRS radios. I have been married for 10 years, and I have a 2-year old son and a small dog. If you would like to learn more about me or my research, please feel free to visit my personal website at <https://www.zachrutledge.com>.

I am an assistant professor and extension economist in the Agricultural, Food, and Resource Economics Department at MSU. Prior to my appointment at MSU, I worked on farm labor research as a postdoctoral research scholar at Arizona State University. I am also a first-generation college student who grew up in a blue-collar family in a rural part of Northern California about an hour and a half north of San Francisco. I worked off and on in the construction trades after high school building and remodeling houses. When I was 30 years old, I decided to change careers and start taking classes at a local community college. I continued my education at the University of California, Davis, where I earned a Bachelor's in Economics and a Master's and Ph.D. in Agricultural and Resource Economics.

My research broadly focuses on economic issues related to immigration, which stems from my experience working with immigrant workers in California's construction industry and my desire to understand how increased immigration impacts the



Andres Contreras:
Associate Professor

I hail from Colombia, where my family runs a small dairy herd of about 120 milking Holstein and Jersey cows. We also have a cow-calf operation with around 200 Brahman cows. Working with cattle has always been my passion, and during my teenage years, I even had the opportunity to show cows at regional and national shows.

After high school, I enrolled in veterinary school at the Universidad Nacional de Colombia. Following graduation, I spent three years in private practice in central Colombia, providing veterinary care to tropical cow-calf operations and grazing dairy herds. Then I was accepted to the Large Dairy Internship Program at Michigan State University's College of Veterinary Medicine and was assigned to practice in a large dairy herd in West Michigan.

During the internship, I became passionate about research leading me to enroll in graduate school. I first completed a Master's degree focused on heifer mastitis and milk quality and then a PhD that studied why fat mobilization in dairy cows affects their immune function. I completed my postdoctoral training at The Center for Integrative Metabolic and Endocrine Research at Wayne State University studying how fat tissues become inflamed when fat is broken down during negative energy balance periods or stressful events like cold stress.

In 2013 I joined the Department of Large Animal Clinical Sciences at CVM and started my research program that studies the adaptations of cows' fat tissues to disease and negative energy balance and their implications for their health and well-being, especially during the periparturient period. In my lab, we are dedicated to finding ways to prevent or lessen the negative effects of fat mobilization on dairy cattle. Our goal is to find solutions that not only benefit the cows but also contribute to the long-term success and sustainability of Michigan's dairy industry.

News & Updates

All things dairy at MSU

GREAT LAKES REGIONAL DAIRY CONFERENCE

The 21st Great Lakes Regional Dairy Conference (GLRDC) was held on Feb. 2-3, 2023, at the Soaring Eagle Casino and Resort in Mt. Pleasant Michigan. If you weren't able to attend, here's a little bit of what you missed.

- Nearly 400 attendees and sponsors attended the two-day program.
- Approximately 70 sponsors and exhibitors from various facets of the dairy industry helped support and enhance the conference.
- The conference featured a variety of speakers and topics, including:
 - The state of the industry with Sarina Sharp.
 - The latest research on transition cows, cow nutrition and heifer management.
 - The future of farming from both a technological and social perspectives.
 - New insights on corn silage, covering plant health, compaction, manure, fertility management, alternative forages, silage safety, and more to help producers excel.
 - Approaches to improve efficiency and profitability through data.
 - The ins and outs of using TN visas to increase the available labor pool.
 - Ways to improve manure utilization, conservation practices, and recovering energy.
 - Research supported methods to prevent and manage scours in calves.

Participants indicated the new layout, blending session space and sponsors, added session offerings, and expanded networking time for engagement and learning enhanced their experience and they look forward to attending again in 2024.

The planning committee is busy working on the 2024 conference and will post updates this fall to the GLRDC website at: www.glrdc.org.



News & Updates

All things dairy at MSU

MSU DAIRY FARM OPENS ITS DOORS TO THE SPARTAN COMMUNITY

The MSU Dairy Teaching and Research Farm has an open door policy for the public who want to come out and see the cows. Many people regularly take advantage of this opportunity. Because the MSU Horse Farm recently participated in an M-AAA funded project highlighting the stress-relieving impacts of interacting with horses, we knew there was an opportunity to help after the tragic events of February 13, 2023. A small group of faculty and staff came together to promote the horse and dairy farms as places to gather and enjoy the company of our four-legged friends. We put a few posts on social media inviting the community to visit, which went quickly viral!

The first two outreach events hosted 800 people between the two farms. The participants were grieving students, community members, University employees, and families that needed a safe place to take their mind off of everything going on. Many people hung out at the farm for hours, going back and forth between all the donated food and revisiting the animals. The farms received news coverage and the many requests for more open house days.

In the months since the shooting, the Dairy Farm has offered “De-Stress with the Cows” days once a month. These events have been hugely popular! The March event brought over 600

visitors in two hours - more than the farm can accommodate!

Participants waited very patiently for their turn to interact with calves and cows.

Because our cows are so used to visitors, we placed two mature cows and one heifer in box stalls and let people go in to brush, hug, lay with, and even milk them. Another crowd favorite is to open the windows of the classroom while the cows are outside. The girls will fight for a spot to stick their head in the window, much to the delight of everyone in the classroom!

In subsequent events, the farm saw a more reasonable 300-400 visitors per event – and we were more prepared. We had educational stations set up to provide information about agriculture in Michigan and the health benefits of dairy products. Of course, the dairy treats provided by United Dairy Industry of Michigan at each of these events were a big hit! For now, we plan to continue offering opportunities for the public to visit the farm and learn about dairy cows, although we can't wait for the new farm with a proper visitor center!

By Faith Cullens-Nobis and Hannah Sheathelm



Faith Cullens-Nobis, MSU South Campus Farms Director and MSU Extension Educator, stands next to a cow.



Sparty pets a calf at the MSU Dairy Teaching and Research Farm.

News & Updates

All things dairy at MSU



News & Updates

All things dairy at MSU

NEW MSU DAIRY FACILITY PLANNING MOVES FORWARD

Following an investment by the State of Michigan in MSU agricultural research infrastructure in mid- 2022, planning for the facility began in earnest. Currently, several firms are working closely with MSU faculty and staff to design a facility that will put MSU at the forefront of dairy research, teaching, and outreach efforts well into the future.

Current plans for the facility include space for approximately 650 cows, automated feed bins for individual feeding of free-housed cows, robotic milking, space to safely train students in cattle handling, classrooms, and a visitor center, among other features. The farm will also enable research and demonstration projects focused on environmental sustainability.

Considering the many purposes of this facility, the design process is complex, requiring lots of voices to be heard. We are fortunate to have 10 experts from the Michigan dairy industry who have volunteered to review the plans on an ongoing basis and provide feedback. Thanks to the committee members:

- Doug Chapin, Remus
- Mark Fox, Sandusky
- Aaron Gasper, Belding
- Tommy Oesch, Alto
- Brent Robinson, Marlette
- Stephanie Schafer, Westphalia
- Bridget Silvernail, Ewart
- Nicole Vanderploeg, Ithaca
- Paul Windemuller, Coopersville
- Matt Wood, Marlette

The planning process will continue into late 2023, with the goal of breaking ground in late spring of 2024. If all goes well, we should be able to move cows into the new facility sometime in 2026. We appreciate the ongoing support and input from all members of the dairy community!

MSU EXTENSION HOSTS DAIRY NUTRITION WEBINAR FOR UKRAINIAN DAIRY FARMERS AND PROFESSIONALS

In the midst of war, Ukrainian dairy farmers are committed to increasing milk production in order to help feed their nation. War has limited their access to many resources including feed, fertilizers and fuel while also decreasing the availability of farm workers.

To address some of these issues, the Ukrainian Milk Producers Association reached out to Michigan State University Extension agriculture experts asking them to virtually present to more than 70 farmers and consultants in Ukraine on ways the farmers could increase milk production to 90-115 pounds of milk per cow with limited resources.

In late March 2023, MSU Extension educators Phil Durst, Phil Kaatz, Stan Moore and specialist Barry Bradford shared their dairy and farming expertise in a presentation titled "Feeding a nation by feeding cows."

The webinar lasted more than two hours, was sequentially translated into Ukrainian, and was recorded by the Ukrainian hosts so more farmers could view it later.

By Phil Durst

[View full article here](#)



Management Tips

MSU Dairy Extension Team



Victor Malacco

Practical heat stress abatement strategies for dairy cows

Dairy cows are more sensitive to heat stress than many other mammals because of their high metabolic heat production and rumen fermentation. Experts estimate that heat stress can cause a financial loss of over \$1.5 billion annually due to its negative effect on milk production, reproduction, increased susceptibility to metabolic and infectious diseases, and increased mortality rates.

Here are some heat abatement strategies that dairy producers can use to help minimize heat stress on their cows:

1. **Shade:** White-colored galvanized metal or aluminum barn roofs.
2. **Ventilation:** Fans and natural ventilation in barns.
3. **Drinking water:** Fresh, clean water checked frequently.
4. **Evaporative cooling:** Supplemental cooling using sprinklers/soakers.
5. **Feeding routine:** Shift feeding schedule to cooler portions of the day.
6. **Ration formulation:** Change diet formulation aiming to increase its energy density without increasing the heat of fermentation.
7. **Stocking density:** Reduce stocking densities and provide 30 inches of feed bunk space per cow.

With proper planning and precautions, heat stress in dairy cows can be managed effectively.

By Victor Malacco

[View full article here](#)



Soil testing returns through MSU Extension

After a three-month break, Michigan State University Extension is pleased to announce the launch of a new soil testing program for Michigan residents made possible through a partnership with A&L Great Lakes Laboratories, Inc. (A&L). Commercial clients may once again purchase soil sample bags and mailers through MSU Extension and receive recommendations directly from MSU Extension. A&L will analyze soil samples and send results to MSU Extension. MSU Extension staff will generate MSU recommendations and send those directly to the client.

Commercial soil sample bags are appropriate for wildlife food plots as well as farm, landscape, nursery, athletic field and other commercial operations. Commercial clients' questions can be answered by MSU Extension educators specializing in particular crops. Commercial soil sample bags can only be purchased in person at MSU Extension offices. The cost for the commercial sample bag is \$18 and does not include shipping costs to the lab for analysis.

The MSU soil test will tell you:

- The current level of plant nutrients in your soil, including phosphorus (P), potassium (K), calcium (Ca) and magnesium (Mg).
- Personalized recommendations for fertilizer tailored to what you plan to grow.
- The pH of your soil, if lime or sulfur is needed, and the amount to add.
- The soil organic matter (OM) level and cation exchange capacity (CEC) of your soil.

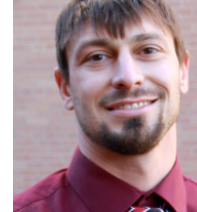
By Brent Crain, Christina Curell, Christopher Imler and Nate Walton

[View full article here](#)



Management Tips

MSU Dairy Extension Team



Jerad Jaborek

Young calves fed starter benefit from supplemental forage

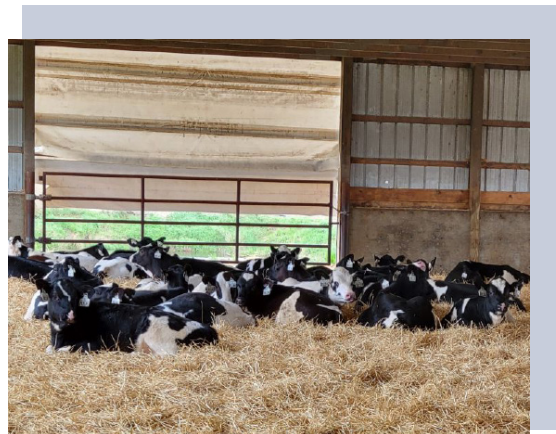
Proper management of young calves is essential for their success throughout life. We must also consider the importance of rumen development, the energy and protein nutrient requirements needed for the desired growth rate, and the rumen environment needed to maintain proper gut health.

To wean the calf from milk and make the switch to a dry feed ingredient-based diet, the rumen must undergo further development to ferment the dry feed being consumed so the nutrients from the feed can be absorbed by the calf. Therefore, it is economically advantageous to encourage rumen development of calves at a young age.

Therefore, both grain and forages can stimulate rumen development, while milk alone does a poor job. Forages are abrasive and can prevent keratinization of the rumen epithelium that hinders VFA absorption in the rumen. Forage inclusion in young calf diets is complex and depends on the physical form of the starter, grain source in starter, starch and fiber concentration of the starter, forage source, forage particle size, forage amount, and bedding source.

Forage inclusion at approximately 5% of dry matter feed intake can result in similar average daily gains and feed efficiency compared with 100% grain-based diets. Forage inclusion in the diets of young calves can help maintain rumen pH for proper rumen health and support rumen development.

By Jerad Jaborek



[View full article here](#)

The Anatomy of a Soil Test Report

If you submit a commercial soil sample to Michigan State University Extension, you will receive a report with easy-to-interpret instructions for adding recommended fertilizers or other amendments. Read this summary of how to understand a soil test report to help you best understand and analyze the results to make effective farm management and soil fertility decisions.

A soil test report can be split into four sections: background information, soil test results, fertilizer recommendations, and footnotes.

- **Background information:** This section contains information provided primarily by the client, which is important for making the correct fertilizer and lime recommendations.
- **Soil test results:** The soil test values are indicators of the relative available nutrient levels in the soil. They are correlated with plant growth and yield responses.
- **Fertilizer recommendations:** Fertilizer recommendations are based on the soil test results and crop information provided.
- **Footnotes:** The footnotes are printed out in special situations to help the client better understand the recommendations and maximize crop production.

By Christina Curell and Christine Charles

[View full article here](#)



Research Drill Down

Kirby Krogstad, Laman Mamedova, Tim Montgomery, and Barry Bradford

Inflammation after calving: a hidden drag on your herd?

The health of dairy cows after calving is important for productivity and fertility during the remainder of their lactation – that is not news to most of us. Research has shown time and again that cows with greater inflammation after calving produce less milk, take longer to get pregnant, and are at greater risk of leaving the herd than their less-inflamed herdmates.

Is this a problem in Michigan? Let's dig into what is and isn't known about this timely topic.

What is inflammation and how is it assessed?

Most everyone is familiar with the concept of inflammation. When our immune system recognizes signs of infection or tissue trauma, responses are activated which result in some telltale signs of inflammation: redness, swelling, pain, and fever. This describes what we refer to as acute or clinical inflammation, which can be diagnosed easily enough with a physical examination of a cow (or self-diagnosed when you roll out of bed in the morning).

As the study of immunology has advanced, though, more subtle forms of inflammation have been described. There are situations where the clinical signs of inflammation are absent but the internal signals that drive inflammation are clearly activated, a condition that we refer to as subclinical inflammation. In human medicine, this can result in a doctor calling a patient back in for more testing after a routine annual appointment reveals a blood marker that is “out of bounds”.

Studies from around the world over the last 20 years have shown that several blood markers linked to inflammation are typically increased – sometimes by as much as 10,000-fold – in cows during the first week after calving. The most commonly used blood marker in cattle is a protein called **haptoglobin**, which is produced and released by the liver when it encounters inflammatory signals. As in humans, an elevated blood marker doesn't necessarily mean that a cow is desperately sick, but it does indicate that an unusual internal process is occurring, worthy of further investigation.

Is this relevant to dairy managers?

One experiment found that cows with abnormally elevated blood haptoglobin after calving produced 1,000 lb less milk over their lactation compared to herdmates with more normal haptoglobin concentrations. At current milk prices, that equates to roughly \$200 less revenue from those cows. On a 1,000-cow dairy farm where 30% of cows experience greater levels of inflammation, a farm could expect to lose \$60,000 of milk revenue in a year. This price tag does not account for the costs associated with reduced fertility and increased culling of cows with excessive inflammation after calving. Clearly, excessive inflammation can hurt dairy profitability.

The difficult part of the inflammation problem is how to address it. Inflammation during and after the calving process is necessary, so we do not want to shut it down entirely – we want to promote a proper and rapid resolution of the inflammation that naturally occurs. Some research has investigated feed additives and drugs that may help manage inflammation during the transition period. However, it's also important to ask whether some management factors put cows at risk for excessive or chronic inflammation.

With funding from the Michigan Alliance for Animal Agriculture, we're collaborating with a team of scientists to address the following questions:

1. What does inflammation look like on commercial dairy farms in Michigan?
2. Does the degree of inflammation vary from farm to farm?
3. What management strategies are associated with post-calving inflammation on Michigan dairy farms?

Research at MSU

To begin to address these questions, we have been collecting blood samples from cows in their first week of lactation on dairy farms throughout Michigan. So far, we have collected blood from 418 cows across 12 Michigan dairies for analysis of haptoglobin.

Other researchers have already demonstrated that

the post-calving period is associated with less milk, poorer fertility, and increased risk of leaving the herd during that lactation. Our goal is to expand on this research to determine if there are management factors at the herd level that are associated with inflammation in dairy cows. If we can isolate certain factors or decisions that may be linked to inflammation, then we can devise management strategies with the goal of reducing inflammation and improving cow health.

We are still in the early stages of this work, but we've already found some interesting patterns in the data that provide insights into post-calving inflammation.

1) First lactation cows have much greater haptoglobin concentrations than older cows do.

This probably is not all that surprising, as these samples come after calving and younger cows often experience more difficulty while giving birth. But it is surprising how large the difference is – 1st lactation cows have more than twice the haptoglobin concentrations of multiparous cows, on average (Figure 1). This suggests that 1st parity cows may experience greater physiological stress than older cows at this time, even though their risk for common transition disorders is less. Research in other species has shown that haptoglobin and other similar blood markers of inflammation can be increased by anxiety caused by stressful surroundings or regrouping, and perhaps the novelty of experiencing lactation cow management (regrouping, parlor visits, older cow dominance) contributes to high haptoglobin in 1st lactation cows.

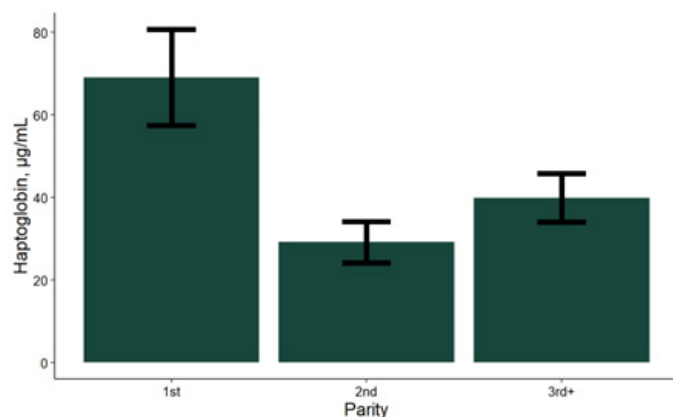


Figure 1. Concentrations of blood plasma haptoglobin, a marker of whole-body inflammation in dairy cows, during the first 7 days of lactation. Results from 412 Michigan cows were clustered by parity group, revealing that first lactation cows have significantly greater haptoglobin concentrations than cows beginning lactation 2 or greater.

We are not able to isolate specific factors that contribute to this elevated level of inflammation with certainty, but our observations support some best practices in managing heifers in the transition period. If infrastructure allows, separating heifers from mature cows during the pre- and post-calving periods may help them adapt more readily. In mixed-parity housing, younger cows are more often displaced from the feedbunk and freestalls than older cows, and the problem is likely exacerbated when transition cows are stocked more densely. Among other issues, inflammation can decrease the drive to eat, and a heifer with high inflammatory signals who is being repeatedly pushed away from the feedbunk may be more susceptible to inadequate feed intake, which promotes metabolic disease and hurts productivity. It also may be helpful to limit pen moves during this period, as these moves increase the social stress that cows face. To help heifers adapt even better to the new conditions after calving, some farms run close-up heifers through the parlor once per day or use training robots (on farms with automated milking systems) to limit the stress of encountering these new environments for the first time right after calving, when physiological stress is also peaking. In general, consider strategies that minimize the stress young cows experience during this time around calving.

2) Inflammation is greatest right after calving and slowly declines over the first week of lactation.

Blood haptoglobin concentrations are greatest in the first 3 days after calving, but they are also the most variable in these days, which indicates that some cows have much greater inflammation right after calving than others. This leads to questions about whether there is any practical means to identify those cows with the greatest degree of inflammation in the day or two after calving, so that they can receive additional support. Unfortunately, as of now, no quick and inexpensive method for identifying these cows has been discovered.

The good news is Figure 2 also demonstrates that the great majority of cows begin to resolve the inflammation in the first week of lactation. Resolution of inflammation refers to the process of downregulating the inflammatory signals and reversing the physiological responses to inflammation. This resolution process is likely important for allowing cows to increase feed intake, initiate a healthy uterine regression process, and hit targets for peak milk production.

Even if we can't practically identify cows with excessive inflammation and intervene individually, there may be ways that we can support the resolution process in all cows, and this is part of the reason for our focus on herd-level assessment in the study. At the herd level, there is evidence that some feed additives, such as omega-3 fatty acids and plant polyphenol sources, can reduce some signs of inflammation in transition cows. For example, one study carried out by our group showed that supplementing cows with an extract from a plant called Chinese skullcap for the first 60 days in milk reduced somatic cell count and increased milk yield by about 13% over the entire lactation.

There are basic management practices that likely aid in the resolution process as well, including maintaining limited stocking density in fresh pens, limiting time out of the pen for milking, cooling dry and fresh cows adequately in the summer, and ensuring consistent access to feed and water. Although it has not



Brianna Hill, undergraduate research assistant, carries out analyses on samples from the study.

been tested, using an individualized approach to “graduating” from a fresh pen may also support more consistent resolution of early lactation inflammation. Through a combination of visual gut fill assessment and cow monitoring technology, cows that are eating adequately by day 10 of lactation may be ready to move to a peak lactation or breeding pen, where nutrient supply is generally greater than in the fresh pen.

On the other hand, cows that are lagging in feed intake, had experienced dystocia, calved in with high body condition, or show signs of any disorder can be retained in a fresh pen for longer. This allows the valuable fresh pen space (and potentially expensive fresh pen feed additives) to be utilized for those cows that need the most support to “get over the hump” and progress to a successful lactation.

3) Some farms have cows with much greater inflammation than others.

The most interesting finding from our preliminary analysis is that there is great variability in the average level of post-calving inflammation across dairy farms. Our goal is to investigate why farms, like 9 and 12 in Figure 3, have cows with greater average concentrations of haptoglobin. These farms share some common management practices that result in cows with greater inflammation after calving?

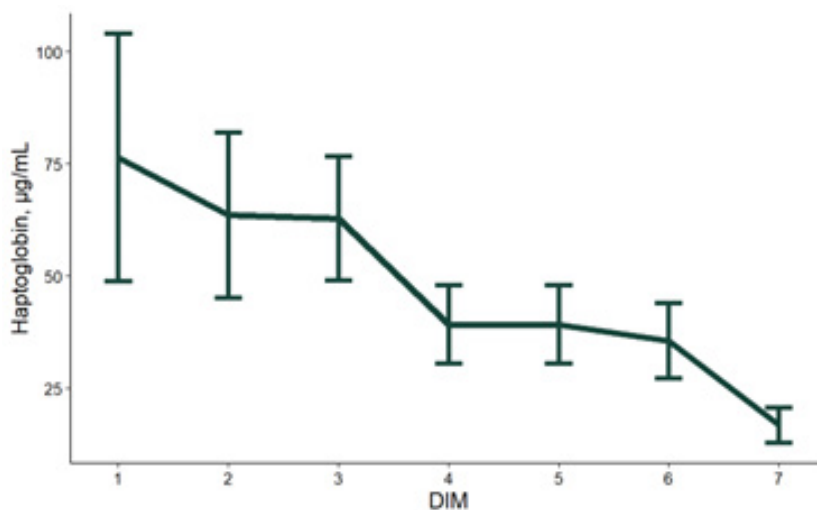


Figure 2. Concentrations of blood plasma haptoglobin, a marker of whole-body inflammation in dairy cows, across the first 7 days in milk (DIM). Data represent a single time point from each of 412 Michigan cows, clustered by DIM.

Identifying such management strategies or characteristics will provide dairy farmers with more information about which strategies are optimal for cow health and productivity.

We will also have samples collected throughout the year, which will help us establish how seasonality may impact the inflammatory status of dairy cattle. Although we do not have concrete answers to these questions yet, we are working toward them with MSU collaborators (Drs. Annette O’Connor and Angel Abuelo) as well as collaborators

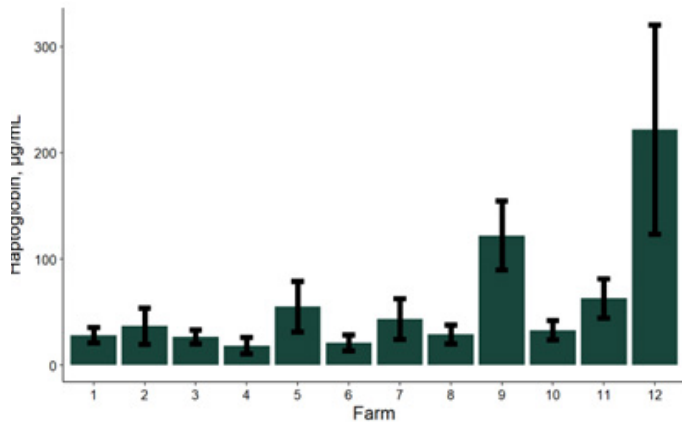


Figure 3. Concentrations of blood plasma haptoglobin, a marker of whole-body inflammation in dairy cows, across the first 7 days in milk. Results for 12 Michigan dairy farms are shown, representing 412 cows in total (n = 20 to 54 per farm).

at Iowa State University (Dr. Gail Carpenter) and Purdue University (Dr. Rafael Neves).

Interested in participating in our experiment?

To address our core questions, we plan to work with at least 40 Michigan farms in this experiment, with 40 to 80 cows sampled from each farm (more than 2,000 cows in total). If you're interested in participating in our experiment, please reach out (bjbrad@msu.edu). Greater numbers of farms and cows in our experiment give us more power to generate insights and concrete recommendations to support healthier, more sustainable dairy herds.

What to remember?

Inflammation is a necessary part of the calving process, but ideally this inflammation is limited and resolves quickly, which allows the cow to get her lactation off to a strong start. Excessive inflammation has a great economic cost due to lost milk revenue, increased disease incidence, and reduced fertility. Haptoglobin, a blood marker of inflammation, is greatest in 1st parity cows and right after calving. Most interesting to us is that there is great variation in fresh cow inflammation across Michigan dairy farms, and we think that management factors may be contributing to this variation. As we continue asking these questions, producers have the opportunity to critically evaluate pre- and post-calving management, nutrition, and health programs to identify bottlenecks that may be making it harder for their cows to resolve inflammation after calving.

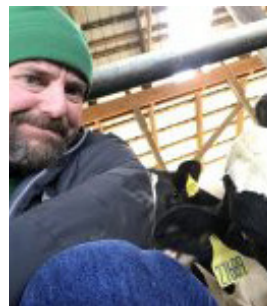
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Michigan Dairy Recognition

Shining a light on industry leaders

Dwyer Williams Named United Dairy Industry of Michigan CEO

Dwyer Williams was selected as the CEO for the United Dairy Industry of Michigan in January of this year. Dwyer has more than 20 years of leadership experience, serving as a counselor to CEOs, business strategist, long-term planning specialist, and marketing leader. Before working for dairy farmers, Dwyer led marketing strategies and integrated teams as the agency of record for Kraft Foods, Hampton Hotels, Jim Beam, Procter & Gamble, and the United States Army, to name a few.

Before joining the UDIM team, Dwyer was Chief Transformation Officer at DMI, the national dairy checkoff organization. Working on behalf of America's dairy farmers, Dwyer worked on industry-wide transformation in the areas of technology, innovation, and cutting-edge R&D and led the Dairy 2030 effort to shape the future of the industry, animals, the environment, and our community.



Brian Preston Contributing to Dairy Policy Reform Efforts

Brian Preston was elected to a three-year term on the Michigan Milk Producers Association board of directors in 2022. In this role, he works with 12 other dairy farmers on the board to help guide the direction of the association and set strategic goals.

Additionally, Preston is also serving on the American Farm Bureau Federation's Dairy Working Group which is advocating for federal dairy policy reform. The group creates recommendations for strengthening the industry through the farm bill and updating the current Federal Milk Marketing Order system.

Along with his family, Preston operates Preston Dairy LLC in Quincy, Michigan. He has a bachelor's degree from Michigan State University in agriscience with an emphasis in agriculture business management.



Jerry Neyer Elected to the Michigan House of Representatives

Jerry Neyer of Shepherd was elected as the State Representative for the 92nd District, which covers Isabella and Northern Gratiot counties. His 2-year term began in January of this year. Neyer serves on the House of Representative's Agriculture Committee as Minority Vice-Chair, the Insurance and Finance Committee, and the Regulatory Affairs Committee.

Prior to being elected to office, Neyer farmed with his father and brother for over 30 years on their family-owned dairy, Neyer Dairy Farms. Additionally, he served as the Isabella County Farm Bureau Policy Development Chairman, was a Michigan delegate for Dairy Farmers of America, participated on the United Dairy Industry of Michigan Board, and served on the Isabella County Planning Commission.

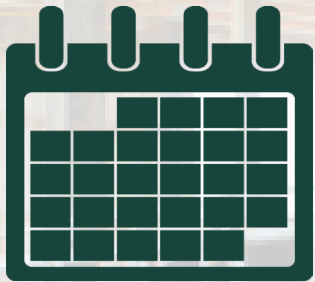
Neyer lives in Shepherd with his wife, Joyce and has two sons, Sam and Drew.



MICHIGAN STATE
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Extension

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Mark your calendar

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your local dairy
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Find them here:



- [Field Crops Virtual Breakfast](#)
April - September (Every Thursday)
- [Michigan Dairy Expo and Michigan 4-H Youth Dairy Days](#)
East Lansing, MI - July 17-21
- [Breakfast on the Farm - De Grins Oer Dairy](#)
Blanchard, MI - July 29
- Dairy Industry Tailgate prior to the MSU vs Nebraska football game
East Lansing, MI - November 4
- All Things BLV 2023 Conference
East Lansing, MI - November 8-10
- MSU Dairy Education Academy
East Lansing, MI - November 10-11