

QUARTER 2 | 2020

HEIFER NOTES

Growing Our Future™



SAVE — the — DATE

DCHA REGIONAL MEETING

OCT 27–29

Visalia, California

DCHA Annual Conference goes virtual

COVID-19 pandemic cancels in-person conference

The COVID-19 pandemic turned the event world upside down, but it didn't stop Dairy Calf and Heifer Association (DCHA) from holding its annual conference. Even though DCHA canceled the in-person event, conference organizers capitalized on today's distance learning technologies and transformed the event into a virtual conference.

"While the virtual format wasn't our first choice for DCHA's Annual Conference, it provided the next-best option that still fostered valuable learning and interaction between speakers and participants," said Sue Schatz, DCHA member services director. "These unprecedented times call for creative learning and experience-sharing venues."

"While we missed the one-on-one interaction with fellow calf and heifer raisers, and industry partners, the virtual conference provided unmatched learning opportunities," said DCHA President T.J. McClure, Prairie Wind Heifer Development, Johnson, Kan. "We're grateful to the presenters who adapted to this year's virtual format and provided exceptional information."

The educational sessions addressed:

- New passive transfer standards for dairy calves and how to achieve them
- Pair housing of calves can be done using outdoor hutches
- Promoting a #WeanClean™ philosophy on your dairy

- Why heifer maturity matters. The Peter Pan problem
- Disbudding practices: Present and future
- Understanding the good, the bad and ugly of the innate immune response
- Managing and marketing dairy x beef crossbred cattle
- Why aren't we all dead? Building on Mother Nature's plan for inducing adaptive immunity through vaccinations
- Dairy industry collaboration on animal care
- Calf nutritional management in 2030: Challenging the dogma

Through the virtual meeting format, DCHA recorded all of the presentations. If you are a DCHA member, you may access all the recordings for a nominal fee. Please contact Sue Schatz, DCHA member services director, at: sue@calfandheifer.org for more information.

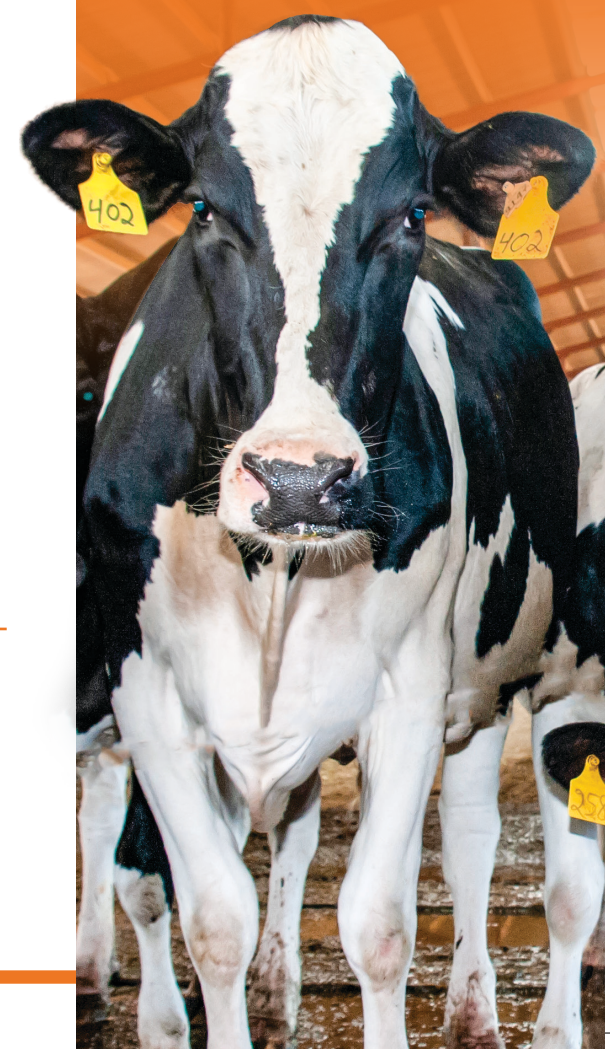
Mark your 2021 calendar for the next DCHA Annual Conference at the Fox Cities Exhibition Center in Appleton, Wis., April 6-8. This area is home to many outstanding dairy operations, including calf ranches, owned and operated by business-minded, forward-thinking individuals.

JOIN US NEXT YEAR



APRIL 6–8, 2021

Fox Cities Exhibition Center
Appleton, Wisconsin



Use science to help determine best disbudding practices

“Given increasing public scrutiny and changing standards for dairy and beef quality assurance programs, disbudding practices will continue to transform in the coming years,” says Sarah Adcock with the Center for Animal Welfare, University of California-Davis. To mitigate risk and help ensure the dairy industry’s sustainability, Adcock advocates the use of science to determine and disseminate best disbudding practices.



Adcock provided a quick review of current disbudding practices. While a common practice a decade ago, hot-iron disbudding standard operating procedures have changed because research concluded that hot-iron disbudding is painful.

“Studies that carefully tracked changes in behavior and physiology found signs of pain, such as increased ear flicking, head shaking and head rubbing, as well as increased heart rate and cortisol – a measure of stress,” she explains. The pain goes beyond the actual hot-iron disbudding process. Wounds take six to 13 weeks to heal, with pain sensitivity lasting up to 14 weeks.

Disbud early

Hot-iron disbudding can be done as soon as buds are visible (within the first week of life) – and before they attach to the skull (about 8 weeks of age). Adcock cautions that calves feel pain no matter their age. She recommends giving a local anesthetic and a non-steroidal anti-inflammatory drug (NSAID) before disbudding.

While easier to perform than hot-iron disbudding, caustic paste also causes pain. This product prevents horn growth by liquefying the horn bud.

“Only use caustic paste on calves less than 1 week old,” says Adcock. “Keep these calves dry and separated from other animals for 24 hours after treatment.” The lasting effects of using caustic paste for disbudding are unknown. “It is clear that pain lasts for

at least three hours after treatment.”

While caustic paste may appear to be a less painful alternative to hot-iron disbudding, no research supports this claim. Two studies compared these two methods and the research results conflicted with one another. It’s worth noting that in goats, caustic paste causes a greater pain response than hot-iron disbudding. Caustic paste has been banned in some European countries because of its risk in spreading it to eyes or onto other animals.

Provide pain relief

Whether you use a hot iron or caustic paste, today’s quality assurance programs require pain relief for disbudding.

“Combining a local anesthetic and an NSAID before hot-iron or caustic paste disbudding is more effective at controlling pain than either drug alone,” says Adcock.

When giving a local anesthesia, Adcock says to inject 5 ml of 2 percent lidocaine hydrochloride at the cornual nerve on both sides of the head 10 minutes before disbudding. An NSAID can be given immediately before or after the lidocaine block. There are limited options for NSAIDs in the United States: transdermal or intravenous flunixin (brand name: Banamine*), and oral meloxicam (brand name: Metacam*). Only flunixin is Food and Drug Administration approved for use in cattle. Meloxicam is used extra label under veterinary supervision. A sedative can also be used to reduce handling stress but does not provide pain relief.

“Pain control is needed for all ages and with all methods,” advises Adcock.

While drugs help control pain for a couple of days, they don’t provide relief while wounds heal. Adcock is concerned because unmanaged pain could increase consumers’ concerns about disbudding. “As awareness about animal welfare continues to grow, we can expect increased demand to incorporate polled or hornless genetics into the herd,” says Adcock.

Consider polled genetics

The interest in polled genetics is growing, but genetic options remain limited. Inbreeding and slower genetic improvement are the primary concerns regarding widespread use of polled genetics. The good news is that “polled” is a dominant trait. “As the number of polled sires continues to grow, the gap in genetic merit between horned and polled animals is shrinking,” reports Adcock.

A bit futuristic, gene editing offers another technology that could rapidly increase the use of polled genetics. Currently, commercial use of gene editing is not allowed by the U.S. government. Given the acceptance/rejection of highly researched technologies, such as recombinant bovine somatotropin and genetically modified organisms, will consumers accept or reject gene editing to create polled cattle?

*The Dairy Calf and Heifer Association does not support one product over another and any mention is not an endorsement by DCHA.

Weaning and transition periods influence a cow’s productivity

By Zach Janssen, TechMix, LLC Bovine Technical Services Veterinarian

There are two times in a dairy cow’s life that can be critical to maximizing future milk production. One, as most of us know, is the transition period around calving. The other, which may be more surprising, is the weaning period way back when the cow was a calf between 45 to 60 days old. Both time periods are stressful to the animal and a challenge for producers to manage. Researchers continue to explore strategies and companies continue to develop products to meet these challenges.

As early as 4 weeks old, the calf starts to transition from a monogastric into the ruminant that it will become. It is well recognized that starter grain intake is critical for rumen development and growth. Fresh water availability and consumption is directly correlated to grain consumption. High-quality hay can be important as well. However, particle length should be kept at 2 to 3 inches and keep in mind that too much hay may limit grain consumption. An 8:1 grain to hay (by weight) ratio has been suggested as ideal to provide adequate energy while starting to expose the calf to roughage. Between 4 and 8 weeks of age, the microbial populations in the

rumen will begin to stabilize and by 8 weeks the goal is to have a calf that has at least doubled in body weight since birth.

Many farms will wean dairy calves around 8 weeks of age to transition from an expensive, labor-intensive liquid diet to a diet of grain and roughage. Stressors on the weaned calf include not only diet change, but likely the calf will also experience a change in housing and social structure. In addition, the calf may even be transported over long distances to arrive at a new housing facility. These stressors can limit feed and water intake, and make the calf more susceptible to diseases, such as coccidiosis and bovine respiratory disease (BRD, pneumonia). To mitigate such stressors, researchers and consultants have suggested a step-down strategy to milk feeding and are investigating the benefits on group housing.

In addition to management strategies, there are several feed additives to consider. Electrolytes will help the calf consume enough water and stay hydrated at the cellular level. Yeast products can help stabilize rumen pH and promote the proper ratio of starch

to fiber digesting bacteria. Ionophores and coccidiostats help prevent and control infection from *Coccidia eimeria* parasites. Direct-fed microbials (DFM, probiotics) will help build the ideal microbiome in the calf’s gut.

There are many feed additive products to consider, but not all are created equal. Work with your veterinarian,

nutritionist and other consultants to include products that are science based, research backed and will specifically work in your management system. Give challenged calves the resources they need to overcome stress at weaning time and they will perform well when they join the milking herd.

Work with your veterinarian, nutritionist and other consultants to include products in calf diets that are science based, research backed and work in your management system.



Building a better heifer

By Jess Arnott, Cargill Calf and Heifer Specialist

What defines your ideal heifer? Is it having zero sick events from birth to calving? What about reaching every growth benchmark on time?

Having a strategic calf and heifer plan and implementing it means going beyond writing your goals down. Reviewing calf inventories, along with calculating cost per pound of gain and recording average daily gains for your calves and heifers, is a great place to start.

In today's market, rearing extra heifers is an unnecessary expense. Calf inventories boil down to raising the correct number of animals and keeping the right ones. To calculate your farm's actual replacements number, we use your specific metrics, including herd size, current replacements, age at first calving and cull rate.

Recently, I worked with a dairy that was raising far too many calves. Calves were doubled up in their hutches and doing poorly because of overcrowding. We calculated a new replacement number, which got them down to one calf per hutch. This, along with changes to their milk feeding protocol, amounted to drastic improvements in calf health and performance.

While heifers don't earn money until they calve, they can still save you money. Cost per pound of gain tracks what you are putting into the calves against the kind of gain you are measuring. When tracking this on dairies, we benchmark changes to a calf program to see if their current cost per pound of gain makes sense. So, if the

plane of nutrition is increased, we want to make sure we see a return. If we can get the same gain for less money and prove it with cost per pound of gain, we can help farmers make smarter business decisions for their feeding program.

The only way to meet your goals is to measure them. "Targeted Growth" is a tool we use to assess heifer development. This is farm specific and based on the heifer's growth rate, mature body size and age

at first calving. This tool can help your farm decide what the optimal breeding age is. In some situations, we've used it to prove to farms that they can breed and calve sooner. In other cases, a later age at first calving made sense.

When you assess your calf and heifer goals, you can make strategic decisions that will help you build your ideal heifer.



When assessing calf and heifer goals, make strategic decisions that help build an ideal heifer.

Emil Walleser receives DCHA scholarship



“By combining cameras, robots and advanced computing, we will be able to predict sickness in animals before they exhibit major signs and thus improving response time and outcomes”

— Emil Walleser

The Dairy Calf & Heifer Association (DCHA) chose Emil Walleser, son of Anne Marie Elwing and Kevin Walleser, De Soto, Wis., as this year's \$1,000 scholarship recipient. The DCHA scholarship program honors an outstanding student pursuing a degree in agriculture, with a particular interest in calf health and future productivity.

Walleser earned a bachelor's degree in dairy science, with a pre-veterinary emphasis, from the University of Wisconsin-Madison and will receive his Doctor of Veterinary Medicine (DVM) degree from UW-Madison School of Veterinary Medicine this year. Also, he gained certifications in collection and in vitro embryo production, financial management, business, basic fish health medicine and beef quality assurance.

Following completion of his DVM degree, Walleser will embark on a master's degree program that focuses on data science, computer learning and artificial intelligence. “By combining cameras, robots and advanced computing, we will be able to predict sickness in animals before they exhibit major signs and

thus improving response time and outcomes,” he said. Next, Walleser plans to pursue a doctorate degree and then work with animal health companies and animal management systems to further integrate these technologies into the equipment used every day in animal production facilities.

Walleser grew up with Walleser Cattle and Wall-Stone Holsteins. He owned and managed a cow-calf herd, along with feeder and finisher operations. On the family's 1,000-cow dairy, Walleser developed and implemented standard operating procedures, and hired, trained and mentored employees, and used computer management software to develop economic reports to assist in key financial decisions.

In addition, Walleser worked as a research project assistant in UW's School of Veterinary Medicine, a veterinary assistant at Prairie Veterinary Service, De Soto, Wis., and a research project assistant in UW's dairy science reproductive physiology program. For two years, he served as Bovine Club vice president and is currently a UW-Madison Brazilian Jiu-Jitsu Club officer.

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