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January 2017

THE NEWSLETTER FOR DAIRY FARM ESTABLISHMENTS



Happy New Year!

After a busy holiday season it's now on to winter. This time of year is full of meetings, workshops and trade shows. Just the month of February includes **The National Farm Machinery Show** in Louisville, KY the 15th through the 18th, and **World Ag Expo** in Tulare, CA the 14th through the 16th, AND if you can't travel a long distance, there is the **Great Lakes Regional Dairy Conference in Frankenmuth, MI, February 2nd and 3rd.**

The first day has informative sessions on many topics including a Global Dairying outlook from a Rabobank Finance Vice President, and a look inside dairying in Australia. The second day will have sessions on milk quality, animal feeding and hoof health with experts from around the country. There will also be a milk quality panel including veterinarians and dairy producers.

The Great Lakes Regional Dairy Conference costs are subsidized by sponsors and exhibitors. Brown Dairy Equipment has supported this conference and has contributed for many years. Doing this allows us to exhibit in the trade show area. Many of the products we will be showing on that Thursday and Friday are

featured in this edition of our newsletter. We will have representatives from AfiMilk, USA and Calf-Star in our booth along with our sales staff to answer any of your questions.

If you would like to attend, you may register online at <http://glrdc.msu.edu>

We hope to see you in Frankenmuth.

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Animattress Stall Beds for Your Cows

Animattress Mattress Systems offer a stall bed for most applications associated with your dairy operation. **Superb Cow Comfort is our ultimate goal** and with that in mind, we offer Animattress 1 and Animattress III stall beds for cows and heifers. We know what it takes to make your cows comfortable and at the same time, provide years of reliable service with a warranty that can't be beat! Animat has more than 90,000 beds in use throughout the world.

Animattress 1 is an open cell foam pad that is encased in a heavy-duty sealed poly bag. This pad is covered with a 4mm rubber top cover that completely and continually encases the pad the length of the run of stalls.

Foam and Top Cover Used for Animattress Mattress Systems

All foam is not created equal. There are two main types of foam used in stall mattresses for dairy cows: open cell foam and closed cell foam. Open cell foam can absorb moisture unless completely encased in a heavy poly "bag" which keeps it dry. Over time, even with heavy use, open cell foam does not rupture and lose its resiliency like closed cell foam can. It retains its elasticity and ability to rebound much longer than other types of foam. For that reason, since cow comfort is our ultimate goal, Animat chose to use open cell foam in their pads. It provides a soft but firm cushion that molds to the shape of the cow when she is resting. It returns to its original shape when she stands up. The top cover Animat uses lives up to the same standard which is made for comfort, strength, elasticity, durability and long life.

Research Tells the Tale

In one research trial in the Northeastern US, a study was done that centered around the resting times of cows on different dairy farms. This was a study that Animat neither participated in nor funded in any way. Each farm had a confidentiality agreement with the company in charge of the study. All information was private. One interesting fact is that one of the farms in the trial, a well-known facility, showed an average daily resting time of over 11 hours in the stalls!

Considering this herd had an RHA in excess of 30,000 lbs. and was milked 3X, this is a major achievement. The trial was not a study on different types of stall mattresses, but the results showed that there was an apparent correlation of resting times and mattress choices. *The mattresses used in this farm's data was Animattress.*

transition

**NEW
PRODUCT**



Animat's new product, the **Transition Rubber Flooring System**, represents the perfect solution for your calves. The Transition mat provides the comfort and security to allow your calves to grow with strong confidence and to perform up to their genetic potential. Specifically designed for calves under 500 lbs., the grooves under the mat bring maximum comfort.

General Specifications:

USE: Wherever extra comfort is needed for your young cattle — calving pen, walking area, and more.

COMPATIBILITY: Compatible with any environment, can be custom cut to fit your setup.

COMPOSITION: 100% recycled rubber, exclusively designed.

SURFACE: Non-slip surface that evacuates water.

UNDERSIDE: Specially designed groove increases comfort and evacuates liquid.

Size (custom order available):

THICKNESS: 0.740" (+/-0.030")

MAXIMUM LENGTH: 72" (+/- 0.031")

WIDTH: 12" to 48" (+/-0.031")

Additional Information:

AVERAGE WEIGHT: 4.17 lb/ft² (+/- 0.1 lb.)

INSTALLATION: Simple and quick with split drive nails.

INTERLOCK: Available on 1, 2, 3, or 4 sides.

COUNTRY OF ORIGIN: Canada

animat.ca



animattress I



animattress III



interlock



max grip

Full Dairy Solution

By simulating a natural pasture environment that can be adapted to all types of facilities, Animat's products can reduce the risk of accidents and injuries in your barns. You will ensure ease of movement for your herd and maintain an easy-to-clean environment.

visit **animat.ca**

Experience Comfort



- Improves comfort
- Helps reduce lameness
- Increases traction
- Helps reduce stress

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• BAD AXE
• McBAIN • PORTLAND

Some sizes of
**INTERLOCK
MATS**
on hand for
immediate
delivery!



Calving Alert Systems: Know Exactly When Your Cow is Calving

By Coleen Chapman, Penn State University

Technology takes monitoring cows at calving time to a new level.

Knowing when a cow is going to calve can improve calf survivability as assistance can be provided during difficult calvings and colostrum can be fed promptly after birth. Dystocia is defined as delayed or difficult parturition and is a major cause of weakness, morbidity, and mortality in calves and increases the incidence of postpartum disorders in cows. A prolonged and difficult calving may cause acidosis and hypoxia in the calf, which can negatively affect immunoglobulin G absorption and influence calf health and future production. Providing calves with high quality colostrum immediately after calving will increase calf survival by protecting the calf against diseases. Inadequate colostrum consumption shortly after birth can result in reduced growth rates, increased risk of disease and death, increased risk of being culled, and decreased milk production in their first lactation.

Observation during calving can be beneficial to both the dam and the calf; however, it is difficult to predict time of calving on the basis of visual signs alone. Using technology to identify cows in active labor can help minimize prolonged calving and improve the overall health and profitability of your operation. Researchers have found that almost 50% of all calf deaths within the first 24 hours after birth are a result of calving difficulty. While monitoring heifers and cows due to calve is vital in improving calf survival, it can be difficult to carry out as calvings can occur at any time of the day and night.

Calving sensors and temperature sensitive devices are available on the market that will send a text message to your cell phone, alerting you that a cow is calving. This technology can provide peace of mind as you will be warned of imminent calvings, allowing you to sleep peacefully. Here are brief descriptions of 4 calving alert systems. This list may not include all available products. No discrimination is intended and no endorsement by Penn State Extension or by the author is implied.



The Mocoall is a non-invasive, tail-mounted sensor that measures tail movement patterns triggered by labor contractions. The device is placed on the tail of the cow opposite her vulva. When the cow reaches a certain level

of intensity and tail movement, the Mocoall sends a text alert to your cell phone; on average the alert happens 1 hour prior to calving. If calving has not occurred after 4 days, the device should be taken off for around 4 hours before placing it back on the tail. Mocoall devices can be washed gently with a brush under running water after every calving and can last up to 5 years when properly maintained.

The AfiAct II Leg Tag is an automatic heat detection system that shows direct correlation between the timing of estrus and the cow's increased walking activity. The sensor measures the walking, resting, and standing activity of cows and heifers. The AfiAct II now has incorporated a calving alert system that sends an alert wirelessly from a leg-mounted sensor to your cell phone within 4 hours from the onset of calving. The device will send another alert if calving is prolonged. It can integrate with AfiMilk's farm and milking parlor system and also available as a standalone system



The Cow Call is a compact light- and temperature-sensitive device that is inserted intravaginally up to 14 days prior to calving to measure spikes in body temperature. The device activates when the cow's water breaks and it is pushed out; it will then detect light and send a message to your cell phone. The device can sync with up to 5 phones, and the inserts can be washed, sterilized, and reused for up to 2 years.

The Vel'Phone is a thermometer that is placed in the vaginal canal just behind the cervix approximately 7 to 10 days before expecting calving and informs you via text message of the day-to-day changes in temperature, the proximity of calving, and when a cow is in active labor. When the cow is within 36 to 48 hours of calving, her internal temperature will begin to significantly drop and a text message will be sent to your cell phone. Another text message will be sent when the thermometer is expelled when the water breaks to inform you of when the cow is in active labor. This device requires a radio base for collecting the thermometers' data.

Calving sensors and temperature-sensitive devices can significantly improve calf survival, cow and calf health, and the profitability of your operation. These devices are an effective management tool that work well in combination with human observation of periparturient cattle.

Reprinted from *Dairy Herd Management*

<http://www.dairyherd.com/advice-and-tips/reproduction/calving-alert-systems-know-exactly-when-your-cow-calving>

REFERENCES

- Faber, S. N., N. E. Faber, T. C. McCauley, and R. L. Ax. 2005. Effects of colostrum ingestion on lactational performance. *Prof. Anim. Sci.* 21:420–425.
- Hall, J. 2001. *The Cow-Calf Manager: First 72 hours critical for calves.* Virginia Cooperative Extension. http://www.sites.ext.vt.edu/newsletter-archive/livestock/aps-01_03/aps-0...
- Lombard, J. E., F. B. Garry, S. M. Tomlinson, and L. P. Garber. 2007. Impacts of dystocia on health and survival of dairy calves. *J. Dairy Sci.* 90:1751–1760.
- Mortimer, R. G. 2009. Calving and handling calving difficulties. In: *Calving management manual.* <https://www.cvms.colostate.edu/lim/projects/neonatal/Calving%20and%20Ha...>
- Odde, H. G. 1988. Survival of the neonatal calf. *Vet. Clin. North Am. Food Anim. Pract.* 4:501–508

Brown Dairy Equipment stocks both the Mocoall and AfiAct II Leg Tag. Call for more information or stop by our booth at the Great Lakes Regional Dairy Conference in Frankenmuth, MI, February 2nd and 3rd.

An Interview with Nate Elzinga of **Daybreak Dairy, LLC** and the performance of the **AfiMilk Herd Management System**

Recently we had an opportunity to interview Nate Elzinga of Daybreak Dairy, LLC in Zeeland, MI, about his AfiMilk Herd Management System.

Brown Dairy Equipment: Tell us about Daybreak Dairy.

Nate: My father Dan purchased the dairy in 1976, milking 60 cows. We are now milking 225 Holsteins and farming 350 acres. The LLC is a partnership between my father, brother Paul and me. We have four full time milkers, my wife, Jenny, and sister, Elisabeth Knott, are part time.

BDE: How is your production?

Nate: We milk three times per day and average close to 100 pounds per day, with annual milk production 30,782 RHA with 1,133 pounds of fat and 928 pounds of protein.

BDE: What equipment and methods were used prior to your purchase of AfiMilk and the progression to today?

Nate: We have a double 8 herringbone parlor that had Delaval meters and takeoffs prior to installing AfiMilk Meters and ID system in 2009. We looked at different equipment because of age and increased maintenance. We installed AfiAct II shortly after its release for our heifers. About three years ago we moved to using AfiFarm software for herd management. In December of 2015, we upgraded the meters to MPC's, part of the herd to AfiAct II tags and added AfiLab.

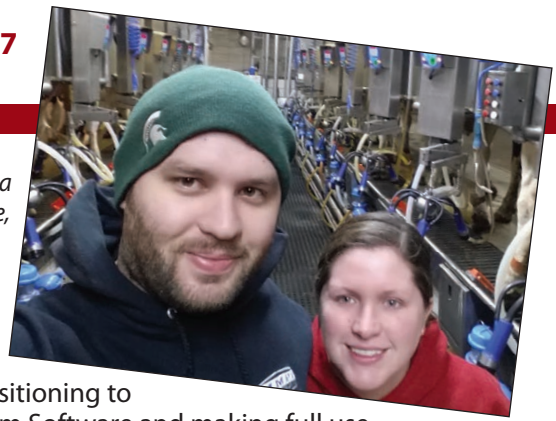
BDE: What differences have you noted since installing AfiMilk?

Nate: The AfiMilk equipment has been very low maintenance and holds up very well. The equipment is highly accurate and provides consistent information. The software provides a wealth of data that can be customized and fine-tuned to make daily tasks easier and allows the right cows to be sorted for the attention they need.

BDE:

You added AfiLab to your system a little over a year ago. What led you to decide to invest in AfiLab?

Nate Elzinga and his wife, Jenny



Nate:

After transitioning to the AfiFarm Software and making full use of the data we were getting with our other equipment (meters, pedometers), I saw the value in getting a better picture of what was happening with the cows with AfiLab. AfiLab helps me sort and treat cows earlier and more effectively for metabolic disorders, and also helps me make adjustments more regularly and effectively with diets for the cows. It was the missing piece to tie together daily cow management and herd management from a nutritional perspective.

BDE: What changes in daily protocol took place since the installation of AfiLab?

Nate: I now use AfiLab to find cows with ketosis/acidosis and treat them early on with less invasive methods. This means checking fewer cows that don't need to be checked, and spending more time with the cows that need attention and activities to prevent health issues. Daily, the impact of the cow's diet is monitored and problems are flagged early, helping to prevent large scale problems like depressed butterfat, acidosis, feed sorting, and early lactation challenges.

BDE: How do these changes impact your cow's performance?

Nate: Watching daily components on the herd has allowed me to fine-tune the diets more closely for higher components, and find the optimal starch level, especially starting with green feed this fall. Finding cows with ketosis

Come to the Great Lakes Regional Dairy Conference to see a working version of this exciting new product!

Afimilk Silent Herdsman

- The most accurate heat detection
- The most accurate health monitoring based on **ruminantion and eating**
- 24/7 detection, long-range radio, high reliability
- Animal friendly, easy mounting collars
- Easy to use management software
- Cloud software as well as on premise computer

Afimilk Silent Herdsman *New!*
The best neck collar for cows:
Ruminantion, eating, activity

afimilk®

and providing early treatment is improving start-up and peak milk while cows are showing heats earlier.

BDE: Can you quantify the savings and improvements that relate to the AfiLab installation?

Note: Not yet, but using the data for diet changes is extremely valuable, and will help to pay for the install at a rapid rate. Also, see below for ROI.

Noted improvements since AfiLab was installed:

- ◆ **INCREASED PRODUCTION**
Easier to find optimum production level related to starch
- ◆ **INCREASED HEAT DETECTION**
Heats are starting earlier, many within the first month without prostaglandin
- ◆ **FEED MANAGEMENT AND COSTS**
Easier to fine tune ration at a more frequent interval for production and components without wasting expensive ingredients
- ◆ **CULLING RATES**
While still early after the install, managing the cows to optimize production, while minimizing body condition change, should improve transition and repro problems and reduce cull rate.
- ◆ **GREATER DETECTION OF HEALTH PROBLEMS, IN SUCH AREAS AS MASTITIS, FOR EXAMPLE**
The combination of conductivity, lactose and production rate has been successful in many cases finding mastitis before the employees in the parlor. I no longer screen cows with Keto-sticks. The butterfat/protein ratio is very successful at finding cows with ketosis, a number of which I would not have found previously between 30- 60 Days in Milk.
- ◆ **TIME SPENT IN OFFICE**
More time with diet changes and fine tuning filters for cow lists, less time checking cows that need no attention

◆ **RESULTING IN...**

Treatments and costs related to more major health events have been lower.

BDE: What management changes have happened since installing AfiLab?

◆ **HEALTH:**

- Protocols for acidosis and ketosis
- Before checking cows routinely at days 1-3, 5, 7,10,15 and cows low in production or 2 deviations
- Now check cows on days 1 and 2, 2 deviations, suspect ketosis, suspect mastitis, suspect digestive upset, and body condition scores at fresh, peak, and dry off, while still developing filters to fine tune list

◆ **MILK PRODUCTION:**

More frequent less dramatic diet changes for cows and closer monitoring

◆ **FERTILITY:**

More heat detection and cherry picking and using software to fall back on sync protocols for cows not complying

BDE: Estimate your ROI (Return on Investment) of the AfiMilk system on your farm.

Note: The AfiMilk system is a series of tools to be used and maintained by the dairy producer and his advisors. A return can only be expected if the tools are used and used correctly. That being said, I expect a return on investment of 2:1 when only looking at the ability to adjust diets and maintain optimal production and health. Beyond that I am saving money on hormones for breeding and am seeing the best repro numbers this farm has experienced. I also am spending more time on the right cows and less time checking cows that need no attention, which may be the best part of all.

Afimilk introduces a new dimension to dairy farming

by implementing the In-Line Milk Lab integrated milking point analysis and control.



- Improved Health
- Efficient Nutrition
- Top Milk Quality
- Precision Milking



BDE: What in your opinion is the most valuable aspect of the AfiMilk system?

Note: You could not take any of the AfiMilk components I'm using away, but I would say that meters, software, and AfiAct II are essential for a base system. Lab opens the remaining doors of opportunity.

Brown Dairy Equipment thanks Nate Elzinga of Daybreak Dairy, LLC for sharing his experiences.

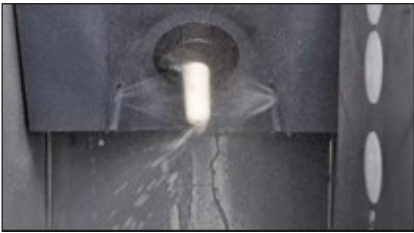


The Best Calf Feeding System now leaps ahead of the competition! Introducing the

HygieneStation from Holm & Laue: a model for healthy calves!



The HygieneStation is the new feeding station for calves, used in conjunction with the Holm & Laue HL100 automatic feeder. Its new technical functions implement the latest developments and requirements, thus ensuring optimum hygiene and nutrition for calves.



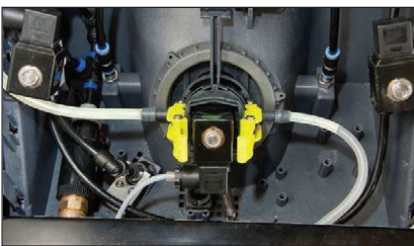
Always a clean teat

The teat on a feeding station has the potential to spread pathogens.

With the HygieneStation, the teat is cleaned of saliva following each visit and the saliva drains away via a large bowl. This reduces the calves' exposure to germs by an average of 80%!

Now the calves can learn for themselves

As soon as a calf sucks on the teat, a small amount of milk flows into its mouth stimulating the calf's initial drink impulse. This function is supported by the new power mixer, which mixes the milk freshly for each visit. Thanks to the pump in the HygieneStation, milk is conveyed to the calf within 4 seconds.



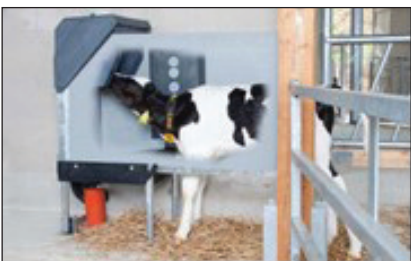
Perfectly clean tube

Now, for the first time, the new HygieneStation automatically flushes out and

cleans the entire milk line all the way to the teat after each feed. This lowers calves' exposure to bacteria, improves their health and reduces the need for manual cleaning.

Now the feeding day is a full 24 hours

The teat is constantly lit by an LED. Practice has shown that this enables calves to position themselves better at night; the milk intake increases during the night hours. This also means that the calf barn is calmer during the day, because the feeding process is evenly distributed over a 24-hour period.



Using Mother Nature as an example

The teat in the feeding station is positioned so that it slants downwards. This supports the calf's natural drinking position. Stretching the head encourages the natural reflex of the esophageal groove and reduces the risk of milk passing into the rumen.





Calf-Star Introduces the...

Milk Taxi 4.0

Available Spring 2017!

Smart ID

The Milk Taxi 4.0 makes it possible to identify the calves and groups of calves in its machine software. Due to the definition of the age of the calf, a feeding curve is programmed which provides the exact feeding quantity they require. Smart ID is an electrical identification system which consists of an antenna placed on the Milk Taxi as well as a transponder on the pen or hutch. Passing by the pen, the number of the pen is recognized and shows in the display. Further information which is pre-entered includes the quantity of calves in the pen, their age and appropriate feeding program. The employee just needs to press the release button of the pump and the required quantity of milk flows into the bucket. This function is globally unique in the market and gives the employees security because they always know how much they need to feed.



Smart Mix

Another advantage of the Milk Taxi 4.0 is the calculation of the required total amount of milk in the Milk Taxi's display. This amount is not estimated anymore but is calculated before feeding the calves, due to defined feeding programs and the number of registered calves. Therefore the preparation is getting easier and mistakes are avoided. In the Smart Mix program the Milk Taxi also shows how much milk or water is already in the Milk Taxi. After entering the desired concentration of milk replacer, the exact mixing ratio is calculated. Next, you can see the required quantity of water as well as the number of scoops of milk replacer that is needed to achieve the respective mixing result. The Milk Taxi 4.0 tells the employee exactly what to do.

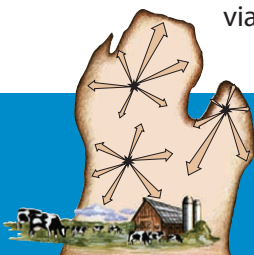


Calf Guide

For the first time, the Milk Taxi 4.0 is able to send calf and feeding data wirelessly to the central Calf Guide server. The data can then be shown in well arranged charts and tables via mobile devices or PCs.

3.0 Upgradable

The Milk Taxi 4.0 won't be available until Spring of 2017, but don't worry, the 3.0 is completely upgradable! So don't wait to purchase until the 4.0 is available because you can purchase upgrade kits. *Pricing is not yet available.*



For more information, contact:

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Brown Dairy Equipment Newsletter

Special Winter Edition 2017

2153 North Van Dyke
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BROWN DAIRY EQUIPMENT



Scholarship Program



The Brown Dairy Equipment Scholarship Program is heading into its fifth year. If you know a student looking to continue their education past high school, please have them apply today.

Applicants who are going to attend a college or university and plan to study animal science, pre-vet, agri-business, agricultural education or any other major in the field of agriculture may apply. Also, students who may be attending a technical school studying the electrical or refrigeration trades may also apply.

For scholarship details, please visit www.browndairyequip.com, find the scholarship section and download the application. Complete and submit to Mary Brown. To reach Mary Brown, you may email her at mbrown@browndairyequip.com, fax to 989-269-1953 or mail to Brown Dairy Equipment Company, 2153 N. Van Dyke, Bad Axe, MI 48413. Our 2017 deadline for applications is April 13, 2017.



BROWN DAIRY EQUIPMENT CO.

serving Michigan Dairymen since 1962