

Hydration & Energy Support During The Fresh Period



HYDRO-LAC® FED TO FRESH COWS LEADS TO INCREASED MILK PRODUCTION



On July 20th, 2016, a 450-cow milk herd in central Minnesota started feeding Hydro-Lac to their fresh pen only. Cows entered this pen right after birth and were moved out of the pen between day 14 to 30. Nothing was changed in the diet except for the addition of .33 lbs. of Hydro-Lac. We compared all cows that calved from July 20 to Sept. 30th for both 2015 and 2016.



**The dairy recorded
a 7 lb. increase of
milk at week 4.**

Based on data summaries^{1,2}, for every 1 lb. of milk increase at week 4, there is the potential to increase overall milk production by 405 lbs. over the entire course of the lactation.

These cows have the potential of milking over 2,837 lbs. of milk more than the cows that calved during the same time in 2015.

This equals to an additional \$510 dollars of revenue per cow over the course of the lactation by feeding Hydro-Lac in the fresh cow ration.

INCREASE IN FIRST SERVICE CONCEPTION RATE

| | 10-1-14 to 4-1-15 | 4-1-15 to 10-1-15 | 10-1-15 to 4-1-16 | 4-1-16 to 10-1-16 |
|-----------------------|----------------------|----------------------|----------------------|----------------------|
| % Conception Breed #1 | 43 | 34 | 37 | 39 |
| % Conception Breed #2 | 39 | 35 | 33 | 38 |
| % Conception Breed #3 | 36 | 28 | 36 | 30 |

Another benefit that was observed on this central Minnesota dairy farm was an increase in first service conception rate. When the dairy compared the entire summer of 2015 to 2016, the farm saw an increase in first service conception rate of 5%. By increasing the conception rate overall for the herd by 3 percent, you have the potential to increase pregnancy rate by 1.8%.

¹Kohls, D. et al., - FAF Report HL1501

²Kinches, T., Form-A-Feed Professional Dairy Conference 2017

Hydration & Energy Support During Periods of Stress



A COMPREHENSIVE APPROACH TO COMBAT INTERNAL STRESS

Hydro-Lac is a specially formulated, patented product designed to provide essential nutrients, electrolytes and sugars. These are necessary to maintain body fluid balance during heat stress, post-calving, transportation, and when faced with metabolic disorders.

Enhanced Hydration: Hydro-Lac improves cellular fluid balance¹ through its proprietary electrolytes and osmolytes, ensuring cells are ready and hydrated for heat stress, calving and transportation events where fluid loss is a concern.

Antioxidant Support: The research-proven antioxidant properties of Hydro-Lac^{1,2} provide immune system support when cattle need it most. Whether just after calving⁴ or during heat stress³, antioxidants can improve cell repair, reduce inflammation, and ultimately lead to faster recovery to normal production following stress events.

Rumen & Gut Health: Severe stress can impact the health and integrity of the rumen and lower gut, destroying protective tissues and opening the door for pathogens and toxins to enter the bloodstream⁵. Hydro-Lac's comprehensive nutrients work to protect from the effects of "leaky gut" syndrome associated with heat stress.

Body Temperature Regulation: Field demonstrations have proven cattle fed Hydro-Lac prior to and during heat stress events are better able to regulate their body temperature. This includes the critical internal temperature that affects embryo survival⁷.

Safe, Improved Energy Status: Hydro-Lac's comprehensive, proprietary ingredients work together to safely transfer extra energy to cells fast, enabling the animal to better cope with stress. Hydro-Lac minimizes the risk of a negative energy balance, and returns the animal to positive energy balance faster for improved recovery and overall performance after a stress event.^{3,4} Cattle can focus more on what they are supposed to do: milk, gain, or reproduce.⁶

Faster Recovery through Proactive Loss Prevention: Only Hydro-Lac's research-proven, proactive approach to minimizing production losses leads to faster recovery, and helps to combat stressful situations for all cattle at any stage in life. Faster recovery means faster return to normal income and improved return over maintenance costs for your business.

Bottom Line: No other product on the market provides the broad-spectrum, comprehensive approach to helping cattle cope with stress.



1 Hoffmann et al., 2014
2 Kern et al., 2012, 2013
3 Abujamieh et al., 2013
4 Kohls et al., - FAF Report HL1501
5 Lambert et al., 2002
6 Carvalho et al., 2014
7 Kohls - FAF Report HL1301