

“ **SCIENTISTS  
SAY**

Choline is  
a Required  
Nutrient for  
Improving  
**Colostrum Yield  
& Quality**

“ *Choline dramatically increased colostrum  
yield – an 80% increase in our study.*

*-Dr. Barry Bradford, Tri-State Dairy Nutrition Conference, 2023*



# ReaShure®

Precision Release Choline

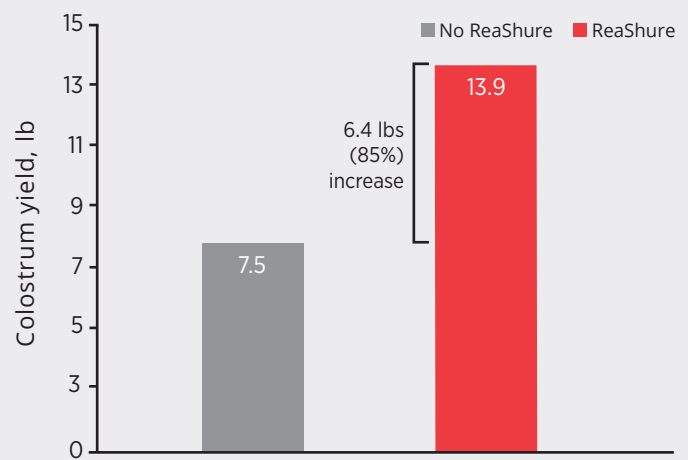


Colostrum is essential for survival and health of the newborn calf. The cow's placenta completely separates the dam and fetal blood, preventing immunoglobulin (Ig) transfer during gestation. Therefore, the newborn's immune protection relies primarily on colostrum immunoglobulins absorbed in the intestine during the first few hours after birth.

Recent research from multiple universities suggests that supplementing cows with ReaShure® *Precision Release Choline* during the close-up period can increase colostrum production. Four recent studies represent the entire dataset measuring ReaShure's impact on colostrum quantity and quality when fed to pre-partum dry cows. Two of the trials showed a large and significant increase in colostrum volume (Swartz et al., 2022 and Holdorf et al., 2023), one exhibited a large and significant increase in IgG (Zenobi et al., 2018a), and one showed no response (Bollatti et al., 2020b).

- ReaShure fed 21 days prepartum
- 6.4 lbs (2.9 kg) more colostrum from ReaShure-fed cows, an 85% increase ( $P \leq 0.01$ )
- Enhanced the yields of choline metabolites
- No dilution of solids
- No dilution of IgG

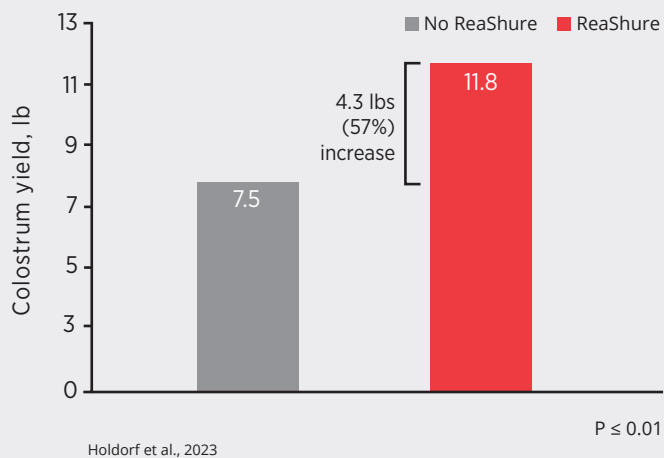
Figure 1 Effect of ReaShure supplementation on colostrum yield



Swartz et al., 2022

$P \leq 0.01$

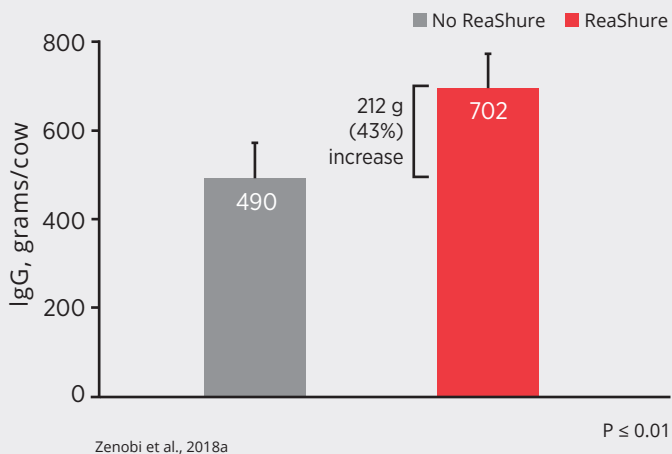
Figure 2 Effect of ReaShure supplementation on colostrum yield



Holdorf et al., 2023

- ReaShure fed 21 days prepartum
- 4.3 lbs (1.95 kg) more colostrum for ReaShure-fed cows, a 57% increase
- No dilution of IgG

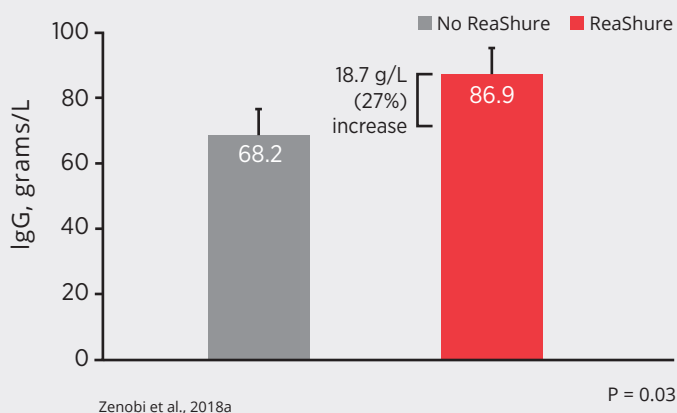
Figure 3 Effect of ReaShure supplementation on colostrum IgG yield per cow



Zenobi et al., 2018a

- ReaShure fed 21 days prepartum
- 212 g/cow (43%) more IgG yield for ReaShure-fed cows ( $P = 0.04$ )

Figure 4 Effect of ReaShure supplementation on colostrum IgG concentration



Zenobi et al., 2018a

- ReaShure fed 21 days prepartum
- 18.7 more g/L more IgG (27%) for ReaShure-fed cows ( $P = 0.03$ )

Dairy producers have known for decades that ReaShure can help support a healthy transition into lactation. New research now suggests it can also improve colostrum yield and quality, helping build a foundation for healthier calves. A short-term investment during the transition period can help ease your cow's transition into a healthy and productive lactation today while paving the way for significant returns in the future as your heifers enter the milking string.\*

Download the complete research summary featuring five studies by snapping the QR code at right.



# “SCIENTISTS SAY

## Choline is a Required Nutrient for Essentially Every Cow

Zenobi et al., 2018a  
Zenobi et al., 2018b  
Arshad et al., 2020  
Bollatti et al., 2020a  
Bollatti et al., 2020b  
Potts et al., 2020  
Swartz et al., 2022  
Holdorf et al., 2023  
Swartz et al., 2023  
Poindexter et al., 2023

### Milk Production

Zenobi et al., 2018a  
Arshad et al., 2020  
Bollatti et al., 2020a  
Holdorf et al., 2023  
Swartz et al., 2023

### Healthy Transition

Lima et al., 2012  
Zenobi et al., 2018b  
Arshad et al., 2020  
Arshad et al., 2022  
Poindexter et al., 2023

### Calf Health & Growth

Zenobi et al., 2018a  
Zenobi et al., 2022  
Holdorf et al., 2023

### Improved Colostrum Quantity

Zenobi et al. 2018a  
Bollatti et al. 2020b  
Swartz et al. 2022  
Holdorf et al. 2023



**ReaShure®**  
Precision Release Choline

This new science changes everything we thought we knew about choline's impact on the cow and her calf. ReaShure® *Precision Release Choline* is the original and most researched rumen protected choline source, so you can be sure you're getting the benefits you expect. Trust ReaShure and Balchem to impact her for generations. [Visit Balchem.com/ScientistsSay](https://www.balchem.com/scientists-say) to learn more.



5 Paragon Drive, Montvale, NJ 07645 USA  
Phone 845.326.5608 | [Website Balchem.com](https://www.balchem.com)

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