

“ **SCIENTISTS  
SAY**

Choline is  
a Required  
Nutrient for a  
**Healthy Transition**

“ *Choline plays an important role in metabolic health. Multiple studies have shown ReaShure's impact on transition cow health.*

*-Dr. Marcos Zenobi, Research Study from 2018*



# ReaShure®

## Precision Release Choline

The transition to lactation is a metabolically challenging period for a dairy cow as they biologically prepare for calving and the onset of lactation. ReaShure® Precision Release Choline has a 25-year track record of helping cows make a healthy transition from the dry period into a prosperous lactation.

- Approximately 180 cows per treatment
- Incidences of clinical ketosis, mastitis and morbidity were significantly reduced ( $P < 0.10$ ) in ReaShure-fed cows
- Though not significant, metritis, DAs and mortality were all reduced by more than 30% in ReaShure-fed cows

- Study evaluated health benefits from ReaShure in a large commercial dairy
- The percent of cows involuntarily leaving the herd by 300 DIM was significantly ( $P < 0.05$ ) reduced by 16.6% in cows fed ReaShure

- Liver fat accumulation decreased linearly with increasing doses of ReaShure
- Choline enhances the liver's ability to package and export fat out of the liver
- Managing liver fat accumulation during transition can help reduce the negative effects of fatty liver on cow health

In dairy cattle, choline is recognized by scientists as a required nutrient for a successful lactation, which must first begin with a healthy transition period. ReaShure is backed by new research that is demonstrating that choline is a required nutrient for essentially every cow regardless of milk production level, body condition score or health status.

## HEALTHY TRANSITION

Table 1 The effects of feeding ReaShure during transition on health disorders

	Control Average, %	ReaShure Average, %	% Reduction	P Value
Retained Placenta	11.2	10.1	9.8	0.72
Fever	31.1	31.6	-1.6	0.77
Puerperal Metritis	3.4	3.4	0.0	0.69
Metritis	11.3	7.9	30.1	0.33
Clinical Ketosis	11.3	4.0	64.6	<b>0.01</b>
Displaced Abomasum	4.5	2.3	48.9	0.77
Mastitis	22.5	14.8	34.2	<b>0.06</b>
Morbidity	57.1	38.4	32.7	<b>0.001</b>
Mortality	7.1	4.5	36.6	0.27
Left Study	9.8	8.3	15.3	0.63

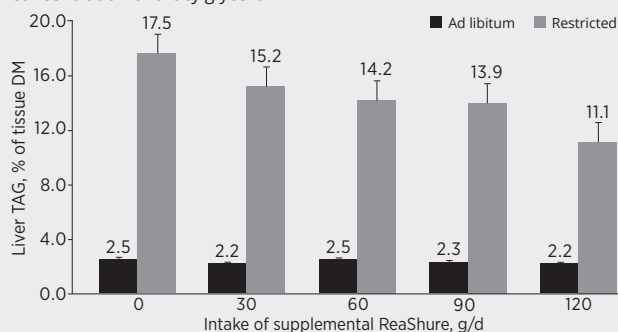
Lima et al., 2012

Table 2 Effect of feeding ReaShure prepartum on health events

	Control Average, %	ReaShure Average, %	% Reduction	P Value
Retained Placenta	4.7	4.7	0.0	0.9
Metritis	20.5	22	-7.3	0.62
Milk Fever	2.4	0.9	62.5	<b>0.08</b>
Mastitis	5.5	5.6	-1.8	0.47
Morbidity	32.6	33.3	-2.1	0.62
Multiple Diseases	7.7	5.6	27.3	0.12
Subclinical Disease				
Hypocalcemia	45.9	56.1	-22.2	0.49
Hyperketonemia	18.1	18.3	-1.1	0.77
Left Herd by 300 DIM	30.7	25.6	16.6	<b>0.05</b>
Sold	27	23.3	13.7	<b>0.08</b>
Mortality	2.9	2.3	20.7	0.92

Poindexter et al., In Review

Figure 1 Effect of increasing intake of choline ion from ReaShure on liver concentration of triacylglycerol



Zenobi et al., 2018b

Linear decrease in liver TAG with increasing intake of choline ions,  $P < 0.001$   
CTL vs all choline ion intakes,  $P = 0.003$

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

