

ReaShure®-XC

Precision Release Choline



Average increase 2.1kg/day milk yield across the full lactation



Increase in milk constituent yield



Improved fertility



Reduction in ketosis and fatty liver



Reduction in metritis and metabolic issues



Improved colostrum quality



Better heifer growth rates



Reduction in subclinical hypocalcaemia

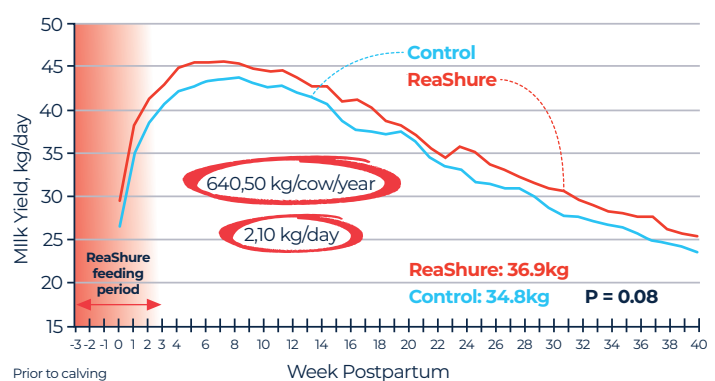


Reduced calf mortality

How does it work?

Combining advanced core technology and industry-leading encapsulation, ReaShure-XC is the most researched, beneficial, cost-effective, and concentrated form of rumen-protected choline on the market today. Most dairy cows are deficient in choline at transition because most of dietary choline is degraded by the rumen microorganisms and her body can't make enough to meet requirements. Choline is essential for the growth and health of all animals and it is required to help the liver process and metabolise fat. A healthy and properly functioning liver can help cows transition more smoothly, creating a faster and more productive start to their lactation.

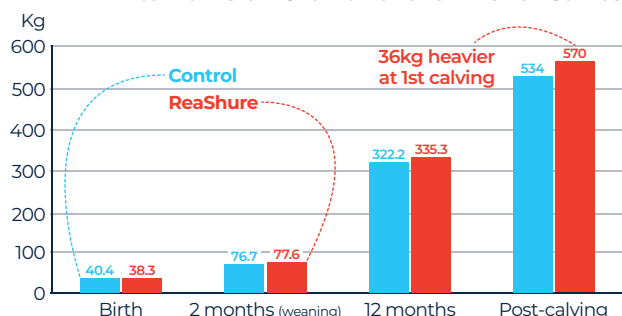
Effect of feeding ReaShure® Precision Release Choline during transition on milk production over 40 weeks



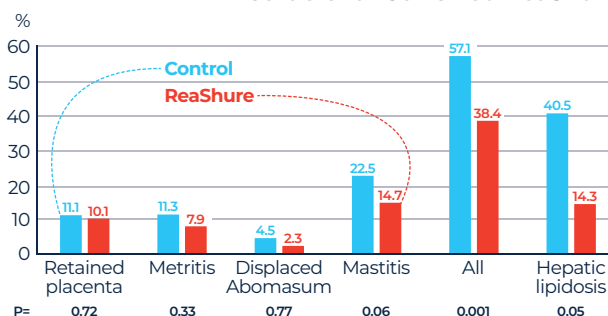
Zenobi, et al. *J Dairy Sci.* 101:1088 (2018)

2,10kg of milk per day which results in **640,50kg** more milk per cow over a 305-day lactation!

In Utero Effect of Pre-partum Feeding ReaShure to Dams on Growth of their Heifer Calves



Reduction in Incidence of Metabolic Disorders for Cows Fed ReaShure



What's happening in transition?

The transition from the pregnant, non-lactating state to the non-pregnant, lactating state poses numerous challenges to the dairy cow. Social grouping and housing changes alongside the period of negative energy balance heightens the need for good nutritional management. During transition, every dairy cow must mobilise body fat reserves to meet maintenance and production demands. Ensuring that the cow has the right nutritional components to best utilise the mobilised fat is key to a successful transition period.

Calf health and performance

Research from the University of Florida now shows a link between prenatal choline supplementation and calf performance. Maternal consumption of ReaShure during late gestation had a positive effect on growth and survivability of neonatal heifers during the first four weeks of life. That effect was further enhanced by feeding colostrum from dams receiving ReaShure. Calves exposed to choline in utero grew faster from birth to calving despite identical nutrition and management post-calving. Those calves had lower incidence rates of fever (31.3% vs. 57.7%) during the first 21 days of life and consumed more dry matter (combination of milk replacer and starter). Heifers that received colostrum from cows fed choline in late gestation, regardless of in utero exposure, had more efficient absorption of immunoglobulins (IgG) and had higher serum IgG and plasma protein levels (indicators of passive immunity).

ReaShure-XC – Unique Core Advancements

The new refined choline core delivers a higher, more concentrated choline payload while eliminating the need for a carrier.

- ✓ The highest choline concentration in the industry
- ✓ Added ration balancing flexibility; higher concentration requires less space in manufactured feeds and premixes
- ✓ Reduced carbon footprint; lower transportation costs/emissions, reduced manufacturing inputs
- ✓ Reduced risk of contamination; no carrier/ nonfunctional ingredients required
- ✓ Non-GMO

Most Advanced Coating Technology: X-Technology

Revolutionary X-Technology carefully balances feed stability, rumen stability and intestinal release to deliver the choline efficiently and cost effectively.

- ✓ Durable and consistently feed stable
- ✓ Effective rumen stability to resist rumen microbial degradation
- ✓ Consistent intestinal release for absorption

Application:

- ✓ ReaShure-XC – 30g/head/day
- ✓ Grouping may restrict feeding, but significant benefits can still be achieved feeding ReaShure-XC only during the pre-parturition periods
- ✓ Three feeding options:
 1. 21 days pre-partum, 21 days post-partum
 2. 21 days pre-partum, 2-7 days post-partum
 3. 21 days pre-partum