

## Supersaf improves rumen health and performance...

*Clinical and sub-clinical acidosis can cost you thousands of pounds each year from losses in milk yield and quality. What's more, acidosis also causes losses from health and fertility issues, which are not always immediately obvious.*



Sub acute rumen acidosis (SARA) is when the pH of the rumen falls below 5.8 and is typically caused when cows consume a highly digestible diet with high levels of carbohydrates and low levels of structural fibre. This can occur when cows are grazing lush pasture, particularly in warm conditions as cows suffering heat stress tend to eat less and this can result in the forage: concentrate ratio getting out of balance.

Whilst it is difficult to tell if cows are suffering from SARA, typical warning signs include low milk fat, poor rumen fill, loose and bubbly dung, tender feet and increased water intake.

Feeding protected live yeast as part of your ration can be hugely beneficial to rumen health and performance. Yeasts, such as Supersaf, quickly use up oxygen in the rumen and stabilise rumen pH. The removal of oxygen from the rumen results in the growth of fibre-digesting bacteria and lactate-utilising bacteria, increasing feed digestion and stabilising

rumen pH, which prevents SARA from developing. The removal of oxygen also increases the hydrogen concentration in the rumen, which then reacts with lactate to produce propionate, a volatile fatty acid (VFA) that optimises milk yields.

Supersaf is a highly concentrated yeast additive and is particularly effective at helping prevent sub-clinical/clinical acidosis. Commenting on the benefits of the product, Tanya Colman from Kite Consulting, said:

"On many farms adding Supersaf has meant that we have been able to remove all other buffers from the diet (such as sodium bicarbonate and Acidbuf) and this saves the farmer money. In addition, feeding Supersaf helps to increase the energy density of the diet compared to feeding large amounts of buffers, as you only need 100g of Supersaf."

For more information on Supersaf please contact us on 01823 491238.

# Manage energy status by feeding Choline...

*Managing the energy status of a high yielding dairy cow can be difficult, particularly during the transition period and in early lactation. It is essential to maintain milk yield and quality, whilst also ensuring that the cow has sufficient energy to support fertility and overall health. To help with this, many nutritionists are now recommending the addition of Choline to the ration at this critical time.*

## What does Choline do?

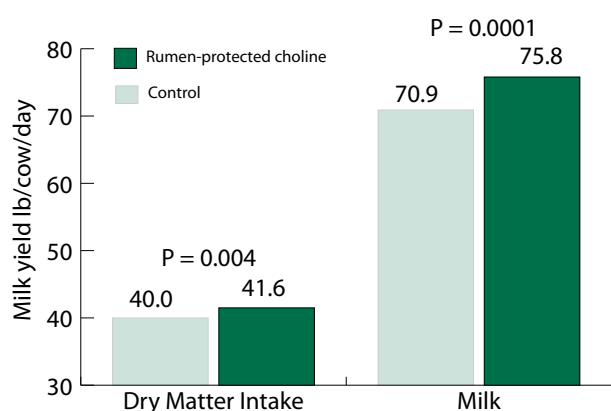
Choline is an essential nutrient that supports healthy liver function - ultimately affecting the availability of energy that cows use for reproduction, milk yield and overall health.

The transition period sees cows mobilising body fat to manage the negative energy balance that typically occurs at this time, and excessive fat mobilisation can result in ketosis and fatty liver disease. Research conducted in the USA (Grummer, 1993) showed that approximately half of all cows have moderate to severe fatty liver immediately after calving. This can depress milk yields and appetite, whilst increasing the risk of health and fertility issues.

The liver is the key site of fat metabolism. When Choline is readily available, the liver can more adequately manage the large amount of nonesterified fatty acids (NEFAs) that are presented to it during the transition period. This helps keep the liver from accumulating excessive fat that would impair its primary function of creating glucose. What this means is that more energy is available to the cow, which during transition and in early lactation helps her return to positive energy balance sooner, whilst the potential for ketosis and fatty liver is reduced.

Trial work has shown that feeding rumen-protected Choline to transition cows results in increased dry matter intake and improved milk yield, as shown in the graph below.

*Results from a meta-analysis of 13 transition cow trials that examined the effects of feeding rumen-protected Choline*



## How do I feed Choline?

Not all Choline sources are the same. Unprotected Choline quickly degrades in the rumen, which means that little reaches the small intestine where Choline is absorbed for use. Here at Advance we recommend ReaShure®, which is the only commercially available rumen protected-Choline product that has been shown – through published research – to offer both high rumen protection and high bioavailability in cattle.

Feeding ReaShure® during the transition period and ideally also in early lactation has been shown to:

- increase Choline availability
- increase milk yields by up to 5lb (2kg)/cow/day in early lactation
- maintain optimal liver function and health, preventing excessive fat being stored in the liver
- help improve energy status in transition cows, which leads to
  - reduction in ketosis cases - clinical and subclinical
  - enhanced follicle development and reproductive success
  - fewer metabolic problems

To find out more about ReaShure® please contact us on 01823 491238.

For enquiries regarding the information in this newsletter please contact:

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