
PRESS ARTICLE**Research shows sara risk when grazing
extends well beyond spring**

Although the increased risk of acidosis when cows are grazing lush spring grass is widely recognised, the fact this risk can continue throughout the grazing season is less well known. According to Dr Nicola Walker, AB Vista's Ruminant Product Development Manager, there's now strong evidence to demonstrate that modern ryegrass swards pose a significant acidosis risk whenever cows are grazing.

"The latest research shows it takes only a small meal of starchy concentrates to push cows over the limit when they're grazing, and not just during spring," she states.

"Most milk producers know the risk of sub-acute ruminal acidosis (SARA) rises as they feed more rapidly fermented concentrate. The risk is also much higher if there's insufficient digestible and structural fibre in the ration, both of which are essential to maintaining optimum conditions in the rumen.

"The challenge is that the 30 litres/cow daily yields targeted on most farms nowadays require high ration energy density levels that risk inducing SARA regardless of how well balanced the diet is. When that diet includes grazed grass, it's much harder to maintain the necessary balance, even when grass fibre levels increase later in the season," Dr Walker adds.

Two studies in particular have highlighted the potential extent of the problem. Analysis of 12 farms in Ireland covering 144 grazing cows supplemented with less than 2kg/day of concentrate showed that 11% of cows were suffering from sub-acute ruminal acidosis (SARA), 42% were at high risk and only 47% had a rumen pH within the normal range (pH>5.8). A study of 100 grazing herds in Australia produced similar results.

"That around half of the grazing cows assessed were either suffering from – or at high risk from – SARA is a major concern," highlights Dr Walker. "And where levels of supplementary concentrate are higher than in the studies, the incidence and risk of SARA will potentially be much greater."

A more detailed investigation carried out in Austria monitored daily rumen pH fluctuations in cows fed either grass only, or grass supplemented with 3kg of concentrate twice daily during milking. The cows receiving concentrate showed significantly lower average rumen pH and minimum rumen pH (see *Figure 1*), plus a massive 347 minutes each day below pH5.8 (compared to just 26 minutes in the grazing only cows) and 101 minutes below pH5.5 (versus 3 minutes).

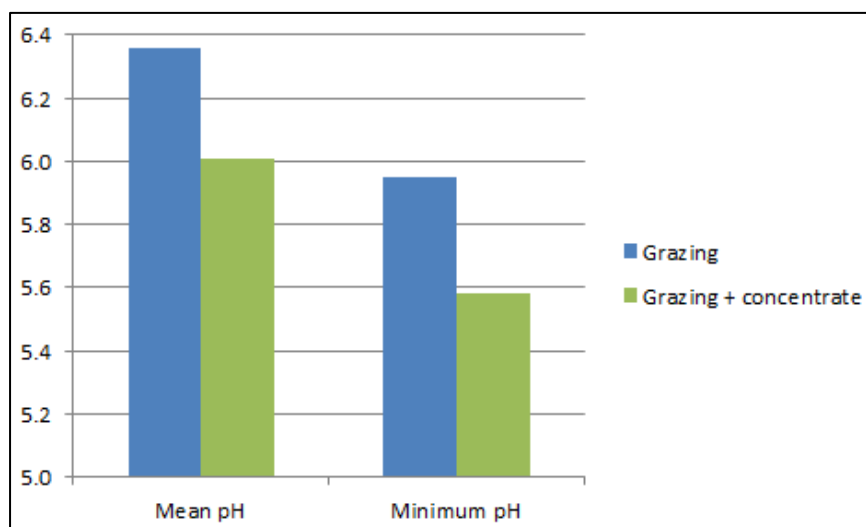


Figure 1 – Impact on rumen pH of supplementing grazing cows with concentrate

“Below pH5.8, fibre digestion within the rumen starts to become impaired, and below pH5.5 cows are generally considered to be suffering from SARA,” Dr Walker continues. “That means reduced nutrient supply to the cow, lower feed intakes, falling milk and butterfat production, and an increase in the incidence of health problems, such as laminitis.

“It’s therefore important to monitor cows throughout the grazing season. Undigested grains and fibre in the manure – coupled with decreased butterfat levels – are indicative of poor fibre digestion due to increased rumen acidity (see *Figure 2a*), whilst mucin tags will also be visible in the manure in extremely acidotic conditions (see *Figure 2b*).”



a) Undigested grains in manure

b) Mucin tags in manure

Figure 2 – Abnormal manure is a key indicator of SARA

Where signs of SARA are found, or milk yields or quality fall unexpectedly, it's important to act quickly to both regain lost production, and to protect cow health and body condition, claims Dr Walker.

"Limit in-parlour feeding to 2kg/cow/day, and consider switching to a compound feed that's high in digestible fibre," she advises. "Also Increase the overall level of digestible and structural fibre in any buffer feed.

"Adding an efficient rumen conditioner such as Acid Buf, or Vistacell metabolically active yeast, can also help stabilise pH, and will typically increase yields by up to 2 litres/cow/day, even before signs of SARA are evident.

"So don't assume the rumen is working optimally just because there are no SARA symptoms, and remember to remain vigilant to any drop-off in production or changes in components whenever cows are grazing."

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