The Effects of Redmond Conditioner on Microbial Metabolism and Efficiency in a Continuous Culture of Rumen Contents

For the past 60 years, **thousands** of customers and **millions** of animals have used Redmond Agriculture's program and never looked back. Switching to Redmond is a small shift that makes a **huge difference**.

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Objective

The objective of this study was to compare continuous culture fermentation parameters when a lactation ration was supplemented on an equal dry matter basis with either Sodium bicarbonate or Redmond Conditioner.

Procedures

A high energy lactation ration was digested in vitro. The control included the use of Sodium Bicarbonate (Bicarb) and the treatment used Redmond Conditioner in the place of Bicarb. Standard digestion processes were followed.

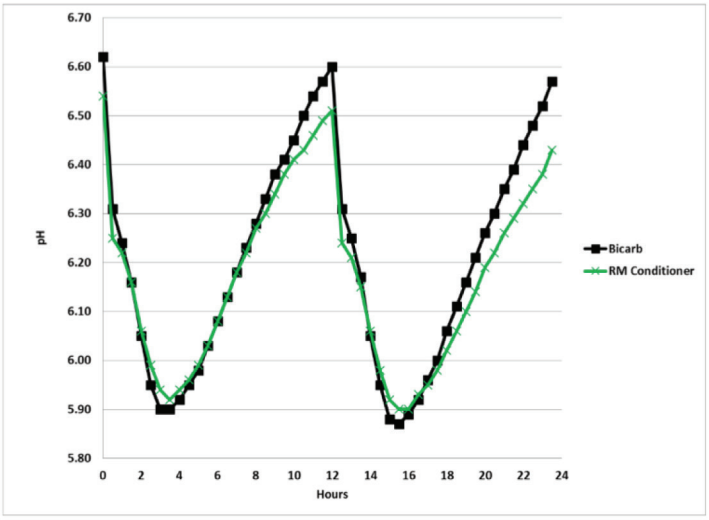
Results

There was a tendency for the Redmond conditioner (Cond) to support slightly greater digestion of acid detergent fiber (ADF) ($P = 0.15$) and neutral detergent fiber (NDF) than the Bicarb treatment. This led to a small increase in the g of total carbohydrate digested for the Conditioner treatment.

Flow from the fermenters of non-ammonia nitrogen (NAN), which is the combination of microbial N and by-pass feed N, was slightly but significantly ($P < 0.05$) higher for the Cond treatment, while the ammonia flow was less due to the significantly ($P < 0.05$) lower ammonia levels in the fermenters.

The average daily fermentation pH did not differ due to the treatments, nor did the rate and extent of the decline in pH after feeding, as shown in Figure 1.

Figure 1. Fermentation pH as affected by Treatment



Trt effect, P = 0.591

Conclusion

No major differences in microbial growth or metabolism due to the treatments were seen but the Redmond Conditioner treatment appeared to slightly enhance the g of total carbohydrate digested/day. This would lead to better feed efficiency. The control of ammonia in the rumen and the utilization off nitrogen are significant in cow health and performance. Redmond Conditioner is effective in this process. Since daily fermentation pH did not differ between due to treatment, Redmond Conditioner is considered a viable alternative to buffering the rumen of dairy cattle.