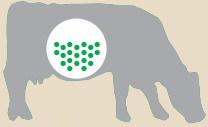


I.R.T.A.  
Dr. Alex Bach  
2005

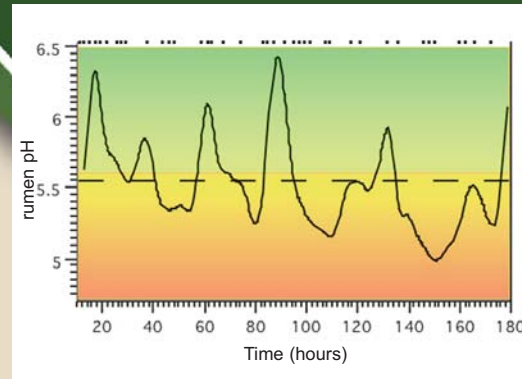


**Levucell<sup>®</sup> SC**  
Rumen Specific Yeast

Technological innovation has enabled researchers to continually monitor ruminal pH and feeding behavior in free stall conditions.

In 2005, Dr. Alex Bach of the Research Institute of Agricultural Technology (I.R.T.A.) Barcelona, Spain, presented research at the American Dairy Science Association which utilized this technology to measure the impact of a live yeast, SC 1077 (Levucell SC, rumen specific yeast) on both parameters.

The specially designed system enabled a ruminal pH measurement to take place every 15 minutes during an 8-day Control and 8-day Treatment period.



Three multiparous lactating cows receiving the same ration (37% NFC, 17.5% CP, 32.9% NDF, NEL 0.75 Mcal) in free stall conditions were supplemented or not with live yeast SC1077 for two periods of 12 days following a cross-over design

The three cows were within a 50-cow herd and in addition to measuring ruminal pH, feed intake and feeding behavior was also measured with the use of ID transponders and Calen gates.

*Cows fed*

*Levucell SC rumen specific yeast  
had lower incidence of acidosis*



*...improvement in rumen pH  
when feeding Levucell SC  
rumen specific yeast....*

**Results:**

Average rumen pH was significantly higher when cows were supplemented with Levucell SC in comparison to the Control period.

Statistical analysis also showed that the percentage of time when pH was below 5.6 and 6.0 sub-acute rumen acidosis (SARA) was significantly reduced when cows were supplemented with Levucell SC.

In addition, the time between meals significantly decreased when cows were supplemented with Levucell SC, i.e. feeding behavior was more of a "pattern of snacking" as opposed to "gorging."

**Cows supplemented with Levucell SC maintained a higher average rumen pH, thus allowing them to consume feed in a more consistent manner throughout the day.**

	Control	Levucell SC	P
Ave. rumen pH	5.51	6.02	<0.01
% of time below pH 5.6	68.3	25.1	<0.01
% of time below pH 6.0	90.6	46.7	<0.01

- ▶ Levucell SC significantly increased average ruminal pH in loose-housed conditions.
- ▶ Levucell SC improved average rumen pH within 4 days of supplementation.
- ▶ Both duration and severity of SARA were reduced by Levucell SC supplementation.
- ▶ Levucell SC supplementation significantly increased the frequency of feed consumption.