



Levucell[®] SC Advantage

The rumen is the cornerstone of fiber digestion.

The rumen is where forage and feed is converted into nutrients and energy thanks to the activity of the rumen microflora. The success of this complex process relies on various factors and ultimately determines the feed efficiency of the ruminant animal and in turn the profitability of the operation. The inclusion of direct fed microbial products within ruminant diets is a common practice. But not all microbial products are the same.

THE LEVUCCELL[®] SC DIFFERENCE

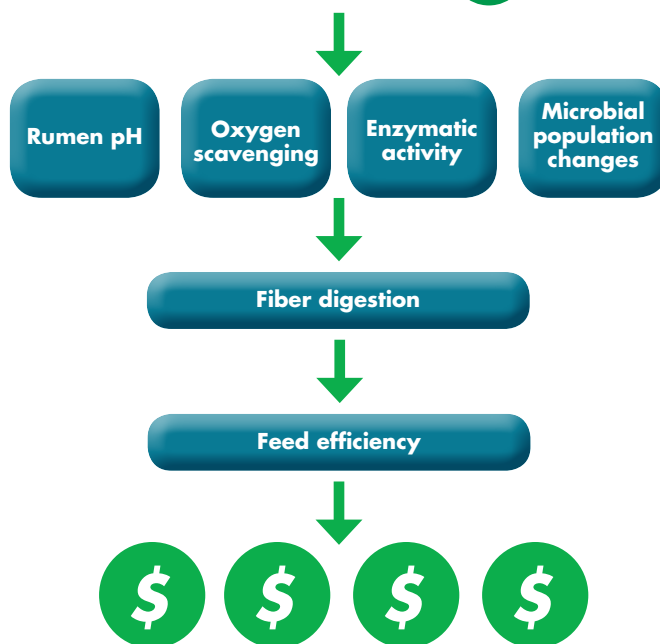
- **Levucell SC (*Saccharomyces cerevisiae* CNCM 1-1077) is the only naturally occurring, rumen specific active dry yeast that has been selected to help optimize rumen function.**
- This direct-fed microbial has been screened from thousands of strains for its high capacity to increase pH and increase fiber digestibility in the rumen.
- Levucell SC is a unique, research and farm proven microbial technology that is fully viable, metabolically active and functional across the wide range of rumen environments found in commercial practice.
- Levucell SC, an active dry yeast, has received a functionality claim from the United States Food and Drug Administration (FDA) which states that supplementation with yeast can "aid in maintaining cellulolytic bacteria population in the rumen of animals fed greater than 50% concentrate."¹

¹ The Center for Veterinary Medicine of the FDA has agreed to allow an important functionality claim for live yeast in applied ruminant feeding based on a research dossier submitted by Lallemand Animal Nutrition.

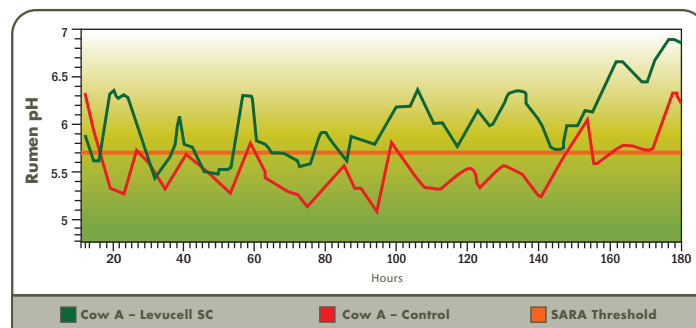
² Thrune, et al., 2007. J. Anim. Sci. Vol. 85, Suppl. 1/J. Dairy Sci. Vol. 90, Suppl.

³ Bach, et al., 2007. Animal Feed Science and Technology, 136, 146-153.

Levucell[®] SC



LEVUCELL SC HELPS INCREASE RUMEN pH IN DAIRY CATTLE



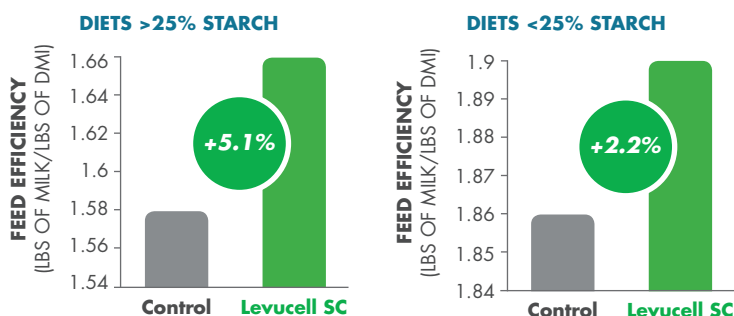
Ruminal pH is a dynamic pattern that fluctuates throughout the day depending on the size and composition of the previous meal. Trials show that dairy cows supplemented with Levucell SC significantly improve ruminal pH pattern (minimum, maximum and average) and spend more time above the sub acute ruminal acidosis (SARA) threshold.^{2,3}



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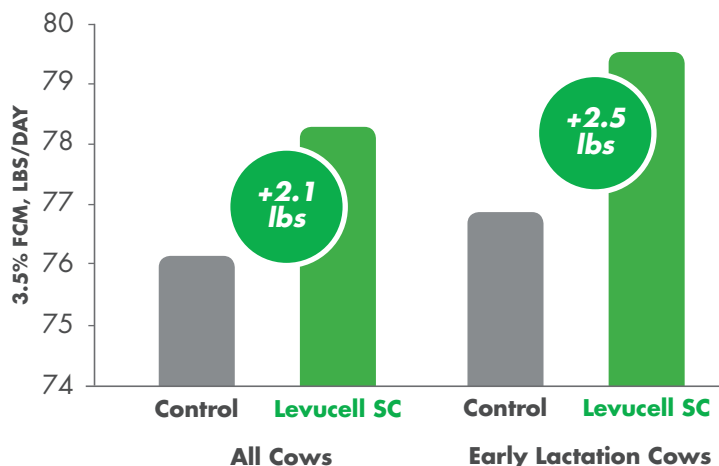
READY-TO-USE FORMULATION

LEVUCELL SC ACROSS A RANGE OF DIETS⁴



Across multiple trials, cows supplemented with Levucell SC show an increase of 2.1 lbs of 3.5% fat-corrected milk (FCM) and were more efficient than control cows.⁴

DAIRY CATTLE SUPPLEMENTED WITH LEVUCELL SC⁴



LEVUCELL SC ADVANTAGE BENEFITS DAIRY CATTLE AT ALL LIFE STAGES

Calves, heifers, lactating and non-lactating cows

- Rumen maturation (calves)
- Increase rumen pH
- Increase fiber digestibility
- Optimize rumen function

LEVUCELL SC ADVANTAGE FITS ANY MANAGEMENT PROGRAM

Ready-to-use formulation can be used:

- In on-farm mixing
- In a feed mill premix (Titan[®] formulation can be used in pelleted feeds)
- As a top dress

MULTIPLE BENEFITS OF LEVUCELL SC ADVANTAGE

The Advantages are as easy as 1-2-3.

1. Levucell SC Advantage is a naturally occurring, rumen specific active dry yeast selected to help optimize rumen function.
2. Levucell SC Advantage also is available as a Titan product, which is the patented micro-encapsulation technology that allows for the product to be pelletized and remain viable.
3. Levucell SC Advantage is a ready-to-use formulation that also is:
 - Easy-to-blend
 - Available in a 20 kg box (40 boxes to a pallet)
 - Resulting in 1,600 – 12.5 gram or 10 billion colony-forming unit feedings/box

⁴ de Ondarza, et al., The Professional Animal Scientist 26 (2010): 661-666