

# Micro-Cell PB Research Summary



**MICRO-CELL® PB** contains a specific strain of *Propionibacterium freudenreichii* that was selected at Oklahoma State University in the early 1990's. In the screening process, **MICRO-CELL® PB** was recognized as the most efficient strain to utilize lactate in the rumen, thus helping to reduce acidosis. This unique strain contains freeze-dried bacteria for use as a probiotic for finishing cattle that are on highly processed rations.

**MICRO-CELL® PB** has been proven to effectively utilize lactate in the rumen. Utilization of lactate helps control ruminal acidosis and ensures that rumen function is optimized. Although acute acidosis is more obvious in terms of visual signs and impaired animal performance, sub-acute (less severe) acidosis can be a significant problem in feedlot cattle. Sub-acute acidosis is not visually obvious, but leads to large fluctuations in feed intake which will have an immediate impact on feed conversion, average daily gain, and ultimately, animal profitability.

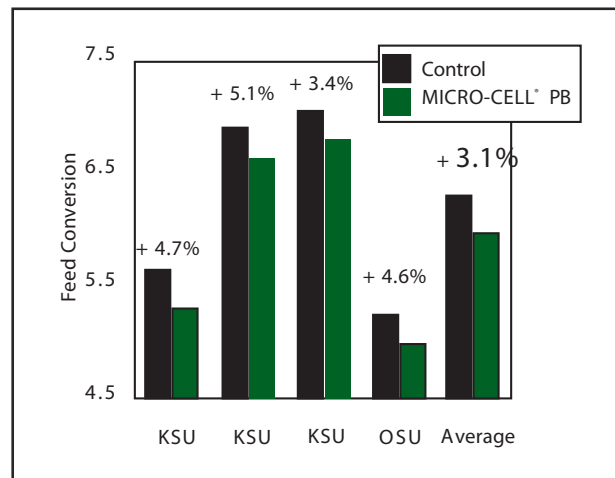
**MICRO-CELL® PB** is tried, tested and trusted by feedyard nutritionists and managers for its ability to improve animal performance. It's clearly defined mode of action has led to many successful scientific trials showing a positive effect on key indicators of sub-acute acidosis, i.e., feed conversion and average daily gain. The combination of these two factors has a significant impact on closeouts and profitability.

## **AVERAGE DAILY GAIN**

Research trials conducted at several universities have found significantly increased weight gain with **MICRO-CELL® PB** feeding. In trials at Kansas State and Oklahoma State involving over 500 head, average daily gain was improved by an average of 0.15 lbs per day over an average feeding period of 104 days.

## **FEED EFFICIENCY**

Significant differences in feed conversion were also demonstrated when feeding **MICRO-CELL® PB**. Data at Kansas State and Oklahoma State showed an average improvement in feed conversion of 3.1%.



Cattle that are under less acidotic pressure will be more efficient at converting feed into live weight gain. In addition to the controlled university studies outlined above, similar improvements in feed conversion have been observed in large commercial feedlots.



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