

## **EFFECT OF CELL-RATE™ ON FECAL MICROBIOLOGY IN PIGS**

In a trial in Memphis, TN it was tested if Cell-rate™ would alter fecal microbiological counts of coliforms and lactobacilli. *E.coli* (*Escherichia coli*) is a coliform species found in the intestinal tract. Reducing the levels of coliforms, like *E. coli*, in animals is critical as they inhabit the intestinal tract. Improving the lactobacilli level in animals is important as they play a key role in the maintenance of healthy intestinal microflora. Coliform and lactobacillus counts were measured on days 4, 14 and 42.

<b><u>Days of trial</u></b>	4	14	42
<b><u>Coliform Counts/g</u></b>			
Control <sup>a</sup>	2.6 x 10 <sup>9</sup>	9.0 x 10 <sup>6</sup>	1.5 x 10 <sup>7</sup>
Cell-rate™ <sup>a,b</sup>	1.4 x 10 <sup>8</sup>	6.1 x 10 <sup>5</sup>	2.3 x 10 <sup>6</sup>
<b><u>Lactobacillus Counts/g</u></b>			
Control <sup>a</sup>	10.8 x 10 <sup>9</sup>	3.9 x 10 <sup>9</sup>	1.6 x 10 <sup>9</sup>
Cell-rate™ <sup>a,b</sup>	15.5 x 10 <sup>9</sup>	3.7 x 10 <sup>9</sup>	4.5 x 10 <sup>9</sup>
<b><u>Lactobacillus to Coliform Ratio</u></b>			
Control <sup>a</sup>	4.1:1	435.6:1	106.7:1
Cell-rate™ <sup>a,b</sup>	110.7:1	6065.1:1	1956.5:1

<sup>a</sup> Each observation represents the mean of the same six pigs per treatment.

<sup>b</sup> Cell-rate™ included in diet at the rate of 500 ppm of total diet.

### **Conclusion**

The coliform counts in the Cell-rate™ group were significantly lower than the control group. There was also an overall increase in the lactobacillus level in the Cell-rate™ group. The ratio of lactobacillus to coliform is significantly higher in the Cell-rate™ group among all days of measurement. This trial clearly shows that Cell-rate™ has a positive effect on the intestinal microflora by increasing the lactobacillus count while decreasing the coliform count.