



Technical Bulletin:

Cell-Rate[®] Protects the Health of Arrival Cattle

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Cell-Rate® Protects the Health of Arrival Cattle

Introduction

Cell-rate® is a unique feed additive that has an impact on many growth and production parameters of all animals. Cell-rate® is a blend of specific nucleotides and nucleic acids that help promote cell proliferation and prevent DNA damage caused by oxidative stress. It has been previously considered that all living cells are capable of meeting their requirements for nucleotides by (de novo synthesis) assembling larger molecules from smaller ones. However, recent studies have provided evidence indicating that under various conditions such as stress, disease, limited nutrient intake, etc. that the endogenous (normal bodily) supply of nucleotides is not sufficient for regular cell function and that dietary sources are required (Uauy *et al.*, 1994; Lopez-Navarro *et al.*, 1996; Carver; 1999). It is considered through this process of increased cellular replication and repair to damaged DNA that Cell-rate® gives animals the ability to naturally improve immune response, combat disease, enhance performance, and increase nutrient absorption. As a result of these extensive benefits, Cell-rate® has been utilized successfully in feeds provided for arrival cattle in feed yards. Cattleman's Choice Loomix, LLC has also enhanced Cell-rate® technology with probiotics and electrolytes to produce Cellarator® Turbo oral paste product for commercial operations. This product has been used effectively during times of stress, calving, branding, weaning, treatment, and arrival situations.

Trial Background

This study was conducted to compare the effects of Cell-rate® on overall calf health. Research was conducted on a group of high stressed calves at a feed yard in Abilene, TX. In addition, these diverse breeds of cattle were purchased from multiple owners. The 450 Mississippi sale barn calves were split into 3 groups; Control group, Cell-rate® group, and Cell-rate® plus Cellarator® Turbo group. The control group was treated using the feed yard's standard protocol for arrival calves. This was the only group that received a mass injection of a broad spectrum antibiotic (Excede®). The second group (Cell-rate®) was fed a total mixed ration which contained Cell-rate® that was added to the ration using Micro Beef Technologies patented Micro Weigh System, for 21 days.

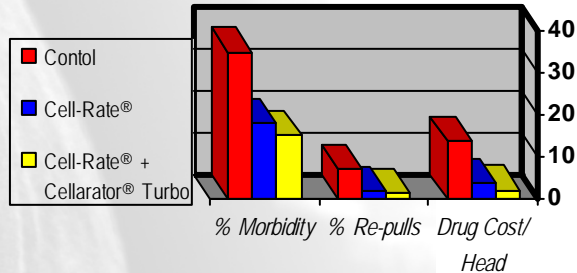
The third group (Cell-rate® plus Cellarator® Turbo) was given a 10cc dosage of Cellarator® Turbo upon arrival and fed the Cell-rate® additive in their ration for 21 days. The purpose of this trial was to look at the benefits of using Cell-rate® feed additive, Cellarator® Turbo, and the combination of both versus the feedyards normal receiving procedure (control) on high stressed cattle. Incidence of morbidity, re-pulls, and treatment costs were recorded for each group. The data from the trial is represented in the table and chart below.

Table & Charted Information

Group	# of Head	% Morbidity	% Re-pulls	Drug Cost/ Head
Control	145	35%	7%	\$13.94
Cell-Rate®*	240	18%	1.7%	\$3.89
Cell-Rate® + Cellarator® Turbo*	65	15.4%	1.54%	\$2.10

* Did not receive broad spectrum antibiotic (Excede®)

Health impact on Arrival Cattle



Results

The research indicates that the calves in the third group (Cell-rate® plus Cellarator® Turbo) had a dramatic reduction in morbidity, re-pulls and treatment costs. As indicated in the table and chart above, feeding Cell-rate® in this study, reduced the number of treated cattle by 44%. Preventative healthcare management has become more prevalent within feed yard environments due to the known effects that poor health has on the feed yard and carcass





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scoring performance. A study conducted in Texas, concluded that the price of antibiotic therapies resulted in costs ranging from \$11.05 per head to \$66.74 per head. (Pinchak, W.E., *et al* 2004.) In this trial, feeding Cell-rate® with a dosage of Cellarator® Turbo saved \$11.84 per head in treatment costs versus the control group.

Another widely accepted example of the negative effects poor health can have on calf profitability is the *Texas A&M Ranch to Rail Studies*. These studies showed that the profitability differences between cattle that get sick versus those that stay healthy can range from \$49.55 to \$151.18 per head. The bottom line is that Bovine Respiratory Disease (BRD) is an expensive problem for cattle producers. Cell-rate® gives cattle the tools to help them adapt to stress, improve immune response and stay healthy naturally, thereby, reducing morbidity, and giving cattle the opportunity to perform and be profitable.

Summary

Producers are always looking for places to save money while making their livestock's natural systems more efficient and productive. As the data suggests, incorporating Cell-rate® into the diet of arrival calves decreased overall morbidity and treatment costs. Since Cell-rate® is a natural feed additive, it is a great tool for natural production systems by helping them respond favorably to high stress situations, exposure to disease, and can even be used in "Natural" and "Never Ever" programs. If you would like to receive more information please contact Cattleman's Choice Loomix, LLC at 800.870.0356 or info@loomix.com

Literature Cited

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Lopez-Navarro, A.T., Ortega, M.A., Peragon, J., Bueno, J.D., Gil, A. and Sanchez-Pozo, A. 1996. Deprivation of dietary nucleotides decreases protein synthesis in the liver and small intestine in rats. *Gastroenterology* 110: 1760-1769.

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