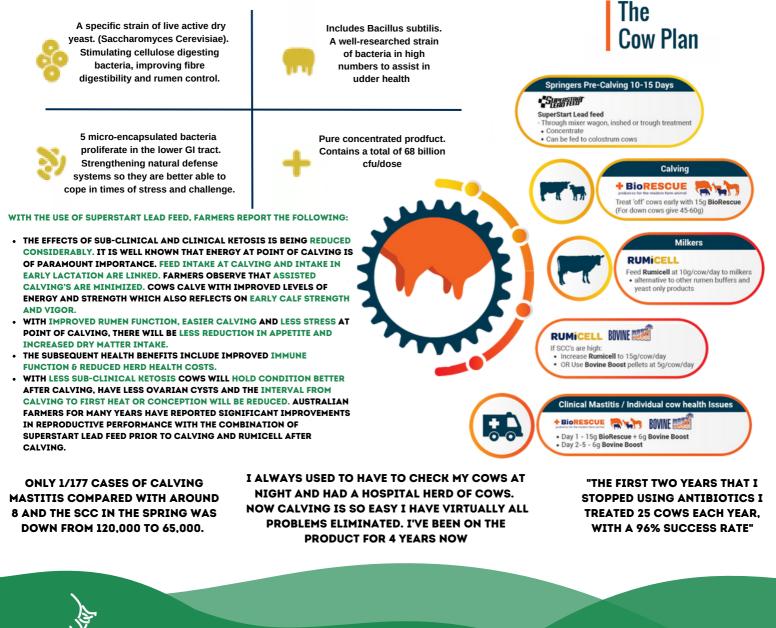


WIN THE START - WIN THE SEASON

- AROUND 80% OF COW HEALTH PROBLEMS OCCUR WITHIN 4 WEEKS OF CALVING INCLUDING MILK FEVER, KETOSIS, RETAINED MEMBRANES, RUMINAL ACIDOSIS, GRASS STAGGERS, MASTITIS, METRITIS, DISPLACED ABOMASUM, AND LAMENESS.
- APPROXIMATELY 80% OF DISEASE COSTS IN ADULT COWS OCCUR IN THE FIRST 4 WEEKS POST CALVING, TRANSITIONING THE COW IN A SMOOTH AND TROUBLE-FREE WAY IS IMPERATIVE.



Probiotic Revolution Limited ~ 25B Norman St New Plymouth 4310



PROBIOTICREVOLUTION.CO.NZ

CHRIS: 027 459 1061

STUART: 021 247 7405

MATT: 021 234 1713

@PROBIOTICREVOLUTIONNZ



WIN THE START - WIN THE SEASON

THE BASIS FOR THE USE OF OUR PRODUCTS AND THEIR FORMULATION RELY ON 3 MAIN RESEARCH PAPERS.

UNIVERSITY OF OTAGO STUDY.

Cows which naturally have a low Somatic Cell Count (SCC) maintain a high population of Bacillus Subtilis, a bacteria with an ability to inhibit mastitis pathogens. This bacteria in high amounts will suppress mastitis pathogens and can populate the udder via the lymphatic system

THE NOCEK TRIAL. (GOFF & HORST).

In this trial post calving production was compared between groups that were fed 3 strains of probiotics. The best results were obtained when probiotics were fed for 21 days pre calving as well as post calving. This paper emphasises the need to reduce subclinical ketosis which in high producing cows is expected to peak 6 weeks after calving. There is a high correlation between subclinical ketosis and mastitis so we have seen a good reduction in **calving mastitis** in herds using SuperStart Lead Feed prior to calving. Because it is not easy to determine that a herd has subclinical ketosis, you can just think of this as a natural consequence of cows losing weight after calving because they are in a negative energy balance.

THE JAPANESE UNIVERSITY TRIAL.

INTRODUCTION:

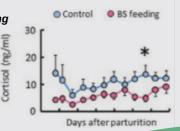
In this trial, cows with a history of mastitis in the previous lactation, as well as maiden heifers were treated daily with a probiotic 20-30 days pre calving and for 10 months of lactation.

Milk samples were taken twice daily and tested for mastitis. Blood samples were taken monthly to give a good understanding as to how probiotics can control and prevent mastitis.

RESULTS:

1. Reduced stress at calving

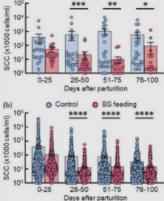
Reduced stress at calving. Cortisol levels (indicating stress) are naturally high at calving. This did not happen in the treatment groups





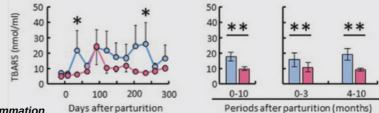
2. Somatic cell count

Somatic Cell Counts (SSC) at calving are affected by colostrum and the initial onset of lactation so this study mainly focuses on cell counts from day 25 to 100 when the majority of seasonal mastitis infections occur. Over this period the cell counts were substantially lower. From days 51-75 treatment cows had a SCC of 10,000 compared with 1 million for untreated cows, demonstrating the ability of the probiotic to treat infections. In heifers the treatment demonstrated the ability to prevent a new infection.



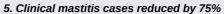
3. Ketosis

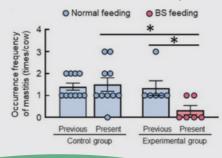
When there is a negative energy balance after calving cows mobilise fat (lipid oxidation) reserves to meet demand for milk and maintenance. blood TBARS detect lipid oxidation. This was considerably lower in the treatment group after calving. Therefore the expected results would be improved milk production, less loss of body weight, less metabolic issues and a reduced time from calving to first heats.



4. Inflammation. Days a

Cells secreted that are a measure of inflammation were recorded in blood samples before calving and a month after calving. For treatment cows they went down but for non-treated cows they went up. This has implications for mastitis and other inflammatory issues such as metritis.









Probiotic Revolution Limited ~ 25B Norman St New Plymouth 4310



CHRIS: 027 459 1061 MATT: 021 234 1713 STUART: 021 247 7405

PROBIOTICREVOLUTION.CO.NZ