

## 5 REASONS TO USE YEAST METABOLITES IN FEEDLOT CATTLE

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### SUMMARY

Yeast metabolites are produced by a fermentation process. They are biologically active compounds that support microbial growth and important biological systems in the body, like immune status.

The 5 key reasons to use Yeast Metabolites in feedlot cattle are:

1. increase appetite and feed intake
2. increase resilience from rumen disruption, resulting in less metabolic problems
3. decrease sickness and death from disease, especially respiratory infections
4. improve heat tolerance
5. replace the use of antibiotics in feed and improve food safety while not contributing to anti-microbial resistance.

#### 1. A WILLINGNESS TO EAT

Preparing cattle for a feedlot is essential. There is stress associated with transport to, and arriving at, a new environment. The first 3 days are critical to the future health of the animal. If cattle are hungry, and have a desire to eat, transport and arrival stress is less likely to result in sickness.

Yeast Metabolites support the growth of rumen microbes and enhance fibre, starch and protein digestion. A larger population of rumen microbes adds resilience to the rumen and promotes digestion and dry matter intake.

#### 2. REDUCING METABOLIC PROBLEMS

Feedlot cattle are fed a high-starch, low-fibre diet which ferments rapidly. Many factors can cause a sudden drop or rise in feed intake, which is dangerous. If the rumen is not resilient, intake changes result in metabolic challenges like acidosis or bloat.

Acidosis in feedlot cattle is a serious problem. Some negative effects are depressed intake and liveweight gain, decrease in conversion efficiency and an increased risk of sickness, liver abscess and lameness.

Cattle fed Yeast Metabolites better manage their rumen pH response and recovery. A maintenance of rumen pH above 5.6 shows a significantly reduced risk of developing lactic acidosis.

Rapid grain fermentation combined with irregular intake or improperly prepared feed can cause feedlot bloat. The accumulation of a foam layer in the rumen prevents gas from being belched. An active microbial population can deal with the foam formation and decrease bloat risk. A decrease in foam strength has been demonstrated in cattle supplemented with Yeast Metabolites from a trusted source, Diamond V.

#### 3. REDUCED MORBIDITY

For the first 20 - 40 days of a feeding program cattle are adjusting to a new routine. During this time stressors like heat and cold, rain and wind, and rough handling can cause sickness.

Yeast Metabolites support several important cellular processes associated with immunity. These changes improve resistance to sickness and resilience to external stress. In effect, the innate immune system, which defends against pathogen infection is improved. By fortifying the innate immune system, cattle are less likely to suffer respiratory disease. Those cattle that do "break" with sickness are faster to recover and require less treatment.

#### 4. TOLERANCE TO HEAT

The effects of heat stress are depressed feed intake and rumen activity, an accumulation of fermentation acids in the rumen, low rumen pH and increased permeability of the intestinal tract. There is also an energy drain from a physiological demand to maintain body systems. Cattle fed Yeast Metabolites have a few advantages.

- i. they maintain feed intake which improves energy status.
- ii. as they have an improved rumen microbiome there is less chance of a fall in rumen pH
- iii. maintenance of rumen pH along with better gut wall integrity prevents movement of toxins (LPS) from the intestine to the blood (also known as 'leaky gut').

#### 5. REPLACEMENT OF IN-FEED ANTIBIOTICS

There is renewed focus on judicious use of antimicrobials in food producing animals. Prescription of antibiotics for disease prevention could be avoided and replaced with improved husbandry, hygiene and management. A suite of antibiotic alternatives is available to assist animal health and production. One such form of Yeast Metabolites from Diamond V, have the ability to replace antibiotics without contributing to the problem of microbial resistance.

Yeast Metabolites are a strong option to replace in-feed antibiotics for prophylactic use due to their role in supporting an enhanced rumen microbiome, preventing leaky-gut and hampering a fall in rumen pH.

The meat processing sector must manage the risk of contributing to food-borne illness. There are many recorded cases of deaths from E. coli and Salmonella contaminated food products. Samples of lymph tissue, taken from cattle that were supplemented with yeast metabolites, show a reduced concentration of virulent strains of pathogenic bacteria. This means, meat products from cattle that were supplemented with YM are a safer food option.

#### WHY DIAMOND V YEAST METABOLITES FOR FEEDLOT CATTLE

75 years ago, Diamond V developed a repeatable fermentation process that yields a constant and useful blend of yeast metabolites. These metabolites are important for supporting animal health and performance. When feedlot cattle are fed the Yeast Metabolites, they are more resistant to stress, get sick less often and convert feed more efficiency. Having worked directly with the Diamond V products and technology gives us great confidence in the science behind them and the value they give.

#### CONCLUSION

Adding yeast metabolites to the diet of lot-fed cattle offers many advantages. Yeast Metabolites promote the natural biological systems of the animal allowing it to remain healthy and tolerate stressors like heat, routine management and infection from pathogens. Cattle supplemented with Yeast Metabolites eat more, grow faster, convert feed more efficiently and require less veterinary intervention. This is achieved without antibiotics.