



## FRESH-GUARD RATION CONDITIONER

### Retaining the value of your ration



Help protect the nutritional value of your ration. The quality of a TMR can be reduced rapidly due to aerobic spoilage. When forage is exposed to the air, the bacteria present begin to grow and ferment the feed. This can occur at the clamp face, or in the feed trough after the TMR has been fed out, before livestock begin to consume the feed. Aerobic spoilage results in the heating of the feed, production of distinct off odours and deterioration of feed quality. The end result is reduced feed intake, reduced animal performance and increased feed wastage.

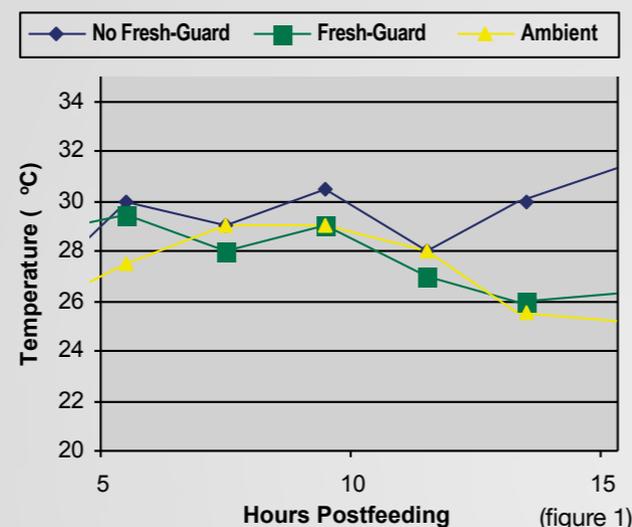
By using **Fresh-Guard**, aerobic spoilage can be significantly reduced, resulting in:

- Better performance
- Improved milk yield
- Higher Daily Live Weight Gain (DLWG)
- Reduced feed wastage
- Increased profitability



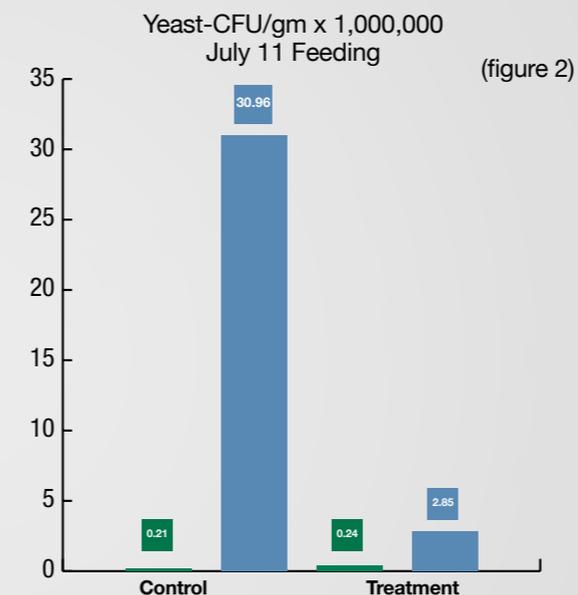
### The Evidence

TMR Temperatures



This graph illustrates that by adding Fresh-Guard to the diet it will reduce ration heating across a 20-hour period. The yellow line shows the ambient temperature which was recorded throughout the day. The blue line is the TMR that did not contain Fresh-Guard and the green line shows the TMR which did contain Fresh-Guard. The blue line showcases a typical TMR that once fed out the bacteria present begin to ferment and grow, this causes a rise in the temperature of the ration. Even as the ambient temperature begins to drop, the TMR still rises in temperature as the fermentation has already begun and will continue to spoil the feed. Comparatively, throughout the day the TMR that had Fresh-Guard in did not rise in temperature and began to cool as the ambient temperature dropped.

The graph below highlights that the addition of Fresh-Guard to the diet reduces microbial growth. The two green bars show the levels of yeast present in a TMR at the start of the trial period. The bar on the left is the untreated TMR and the bar on the right is the treated TMR with Fresh-Guard. Both TMR's start off with low levels of yeast present. However, after a period of time it becomes clear by the blue bar on the left, the untreated TMR has started to spoil as the presence of yeast is 30 times what it was at the start of the trial period. This amount of microbial growth will reduce feed quality and produce distinct off odours, which will cause a reduction in DMI. The treated TMR remains low in amount of yeast present, resulting in the TMR remaining stable and retaining its nutritional value for longer.



The evidence proves that by using Fresh-Guard you can expect:

- Reduced TMR heating
- Reduced microbial growth
- Improved ration condition
- Improved dry matter intake (DMI)
- Maintenance of animal performance, especially in warm weather



#### The Problem:

Aerobic spoilage can start as soon as the ration is prepared. The first signs are the ration heating, which can also be accompanied by distinct off odours and when this occurs the most digestible and valuable nutrients are lost first such as sugars and amino acids. Warm weather is not the only influencing factor that can cause aerobic spoilage, maize silage and moist feeds can also be particularly susceptible.

#### The Effect:

A typical herd will be fed around 22kg dry matter (DM) of a TMR per cow per day. A 5% reduction in DM due to heating in the TMR would mean a loss of around 1.1kg DM per cow per day. If half of the lost DM is from forage, this equates to a 200-cow herd wasting 100kg of forage DM per day, which at an average of 30% DM equates to 330kg/day of fresh silage or 10 tonnes per month wasted. This is forage that farmers cannot afford to lose.

#### The Solution:

To aid in the prevention of aerobic spoilage, Fresh-Guard can be used. Fresh-Guard is a ration conditioner that has been proven to reduce ration heating. This results in increased dry matter intake, better animal performance and reduced feed wastage. All this leads to increased profitability. **Fresh-Guard** can be added to any ED&F Man Liquid Feed bulk blend.

Delivery size options: 5mt to 29mt

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