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What is 'The Dairy Challenge'?

The "Dairy Challenge" is the term used to describe the three critical issues affecting your herd on a daily basis. Every dairy farmer, feed manufacturer and nutritional consultant in the world constantly strives to address this **Dairy Challenge**.

The Dairy Challenge:





Maximise Milk Production Potential

I. Maximise milk production potential

- More milk to satisfy increased market demand
- More milk because it is more valuable





Produce this Milk Cheaper (More Efficient)

2. Produce this milk cheaper (more efficient)

- Because feed costs have increased significantly
- More milk from the same feed





No Compromise on Cow Fertility

3. Avoid negatively impacting cow fertility

- Traditionally increased milk = decreased fertility
 (Body condition sacrificed to produce more milk)
- More efficient digestion reduces body condition loss.

The Solution

Yea-Sacc from Alltech® is the only technology to respond to the **Dairy Challenge** and fulfill all three demands simultaneously.

Alltech has invested in three new independent university trials with Yea-Sacc which is already backed by more research than any other yeast product on the market. The results speak for themselves:



^{*}Results based on average of 3 independent trials conducted at the following universities: Hohenheim University, Germany, Steingass, 2005; University of Tartu, Estonia, Kaske, Kasmus, 2007; University College Dublin, Ireland, Mulligan, 2007

Understanding Yea-Sacc

- the driver of herd profitability



Three major factors contribute to overall dairy farming profitability:

- Producing more milk or more importantly, achieving the cow's full milk potential is the first driver in increasing herd profitability. Milk is a valuable commodity with great market potential.
- The way this milk is produced is determined by the efficiency with which the cow converts its feed into milk. This is simply the cost of feed intake versus the return on milk produced.
- Traditionally there has been a negative financial impact on herd profitability associated with increasing milk yield, with an apparent correlation to increased infertility and other undesirable health issues.



Understanding the technology behind the Yea-Sacc effect



Optimum rumen function provides the platform to maximise dry matter intake and the efficiency of its use. The longer the rumen stays in its most efficient zone of digestion, the greater the potential of the rumen to release nutrients from its feed.

Recent research conducted by G.J. Lascano and A.J. Heinrichs, at Penn State University concluded that this Yea-Sacc rumen effect was observed equally in both high concentration diets and in high forage diets.

Yea-Sacc stimulates the bacteria responsible for both fibre digestion and acid removal. It achieves an elevation of rumen pH leading to more efficient total digestion of both feed and forage.

The increased availability of nutrients allows for more milk production and also reduces the need for the cow to take these valuable nutrients from its own body reserves. This depletion of body reserves lies at the core of the cow's health and infertility issues.



More milk

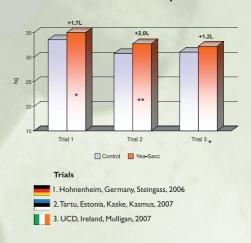


Increased global demand for milk and milk products has created a favourable environment for increased milk production.

Yea-Sacc has been consistently proven over the past 20 years to increase milk production. These latest three studies* reaffirm these findings and offer even more information and understanding.

In these trials, the increased milk production observed came from the same quantity of feed. This demonstrates the cost benefits of including Yea-Sacc in your feed.

Effect of Yea-Sacc on milk production





More efficiently



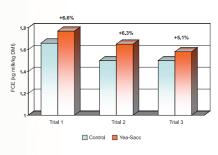
Feed efficiency comes from an optimised rumen environment. The longer the rumen stays above a pH of 6.0 the greater the digestion efficiency.

Yea-Sacc stimulates the bacteria responsible for acid removal, elevating rumen pH leading to more efficient digestion with an average increase of 6%*.

Research with Yea-Sacc has shown:

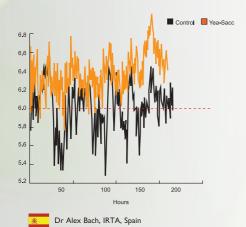
- · Increased average rumen pH
- · Reduced rumen pH variations
- Reduced time below a pH of 6
- Maximised time in the efficient digestion zone.

Effect of Yea-Sacc on feed efficiency



Trials 1. Hohnenheim, Germany, Steingass, 2006 2. Tartu, Estonia, Kaske, Kasmus, 2007 3. UCD, Ireland, Mulligan, 2007

Effect of Yea-Sacc on Rumen pH



Finalines Muscles/
Rumert.

Muscles/
Tissues

Optimising the rumen is critical to increasing overall feed efficiency

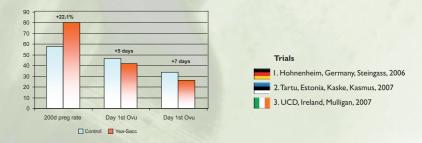
No compromise on fertility



Research has shown that the link between increased milk production and reduced fertility is centred around excessive body condition loss. In the effort to increase milk yield, excessive weight loss in the cow must be avoided.

Yea-Sacc simply reduces the demand on the cow's body reserves. It does this by maximising both feed intake and feed efficiency. The result is 5-7* fewer open days or on average 22%* more cows pregnant at 200 days.

Effect of Yea-Sacc on Pregnancy and Ovulation Rates





Bray Breeding Calendar used widely to manage herd breeding cycles

The link between milk production, efficiency of feed use and body weight can be best monitored by the farmer through Body Condition Scoring.

It is essential that a cow must not lose more than 0.5 of a body condition score from calving to breeding. Yea-Sacc helps to control this loss.

Yea-Sacc body condition loss controller

Good herd management is the ability to achieve a balance between health and fertility through economic feeding whilst achieving optimum production.

This visual guide helps you to manage this effectively using the proven body condition loss limiter Yea-Sacc.

Below are the target scores which may be referenced at the key periods of drying off, calving and breeding.

Body condition loss guide





primes the rumen bacteria to maintain ideal body condition



Yea-Sacc

maximises feed intake and efficiency to minimise body condition loss

BREEDING Target 2.5

Yea-Sacc

the solution to controlling body condition loss. Animals must not lose more than 0.5 of a body condition score.

Body condition score 3.0



Rody condition score 3 0



Body condition score 2.5



The proven solution to...

The Dairy Challenge



All three leading independent university trials* have demonstrated the efficacy of Yea-Sacc as the unique solution to resolve all three key issues of the **Dairy Challenge**. Yea-Sacc, when used as part of a nutritional strategy has been proven to provide:

More milk, more efficiently, no compromise on fertility

* Results based on the average of three independent trials conducted at the following universities:

Hohenheim University, Germany, Steingass, 2005; University of Tartu, Estonia, Kaske, Kasmus, 2007; University

College Dublin, Ireland, Mulligan, 2007

Bringing expertise to the equation

Yea-Sacc from Alltech demonstrates how all-natural technologies supported by constant research can help move the industry forward and meet the challenges of animal production through the provision of nutritional solutions.

Almost 30 years of research with Yea-Sacc allows Alltech to provide the most consistent product possible to the dairy industry.



Alltech Global HQ, Kentucky, USA



European Bioscience Centre, Co Meath Ireland

Assuring quality products

Alltech Quality System (AQS) is a system that incorporates the requirements of all of the major global certifications.



AQS is operational in Alltech's 32 maunfacturing facilities across the globe. This ensures that the product you receive adheres to the highest standards of quality, safety, traceability and consistency.

Insist on the proven solution, insist on



To start using Yea-Sacc, the proven solution to **The Dairy Challenge**, ask for it by name.

Yea-Sacc can be included in your ration by your feedmill. Yea-Sacc is also available as part of Alltech's FarmPak® range which is suitable for use in total mixed ration systems (TMR) or in diet feeders.

This complete range of products may also be available through your local distributor or feedmill.



For further information, please contact your local Alltech representative.

Your local office can be located by logging on to www.alltech.com

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