



South Africa's dairy excellence

Graham Sutherland, Synercore's Culture Specialist & Chief judge of the 2024 South African Dairy Championships shares a personal perspective on South Africa's thriving dairy excellence.

South Africa is blessed with unique beauty and diversity, both in nature and its people. It is therefore not surprising that we are also blessed with a unique, dynamic, and flourishing dairy industry which is driven by passionate, competent, and innovative dairy men and women from all cultural walks of life. These individuals have combined their skills to create a rich tapestry of artisanal and commercial cheeses for our senses to enjoy in a wide variety of occasions.

"During my "Camino" through the SA dairy industry, I have always believed that cheesemaking is both an artful science and a scientific art."

locally produced, award-winning artisanal speciality cheeses crafted from cow, goat, and even sheep milk. Meanwhile the large commercial cheese companies continue to "churn" out tons of high-quality pizza mozzarella, cheddar, and gouda variations to keep the food service industry satisfied and the retail supermarket shelves well stocked.

During my "Camino" through the SA dairy industry, I have always believed that cheesemaking is both an artful science and a scientific art. This is the key to making a great cheese.

ARTISANAL SPECIALITY

Although South Africa does not enjoy a historic cultural romance with cheese like many European countries do, we can still be proud of our cheese achievements here at the Southern tip of Africa. As a nation we are transitioning from simply consuming yellow cheddar and gouda to enjoying a wide variety of

Proving the dairy industry's commitment to quality, the first South African Dairy Championship was held in 1833 and today boasts with more than 900 entrants in up to 10 categories, including cheese. When the cheeses arrives for judging, it is evaluated by a panel of five judges using a 30-point international scoring system. The cheese is scored for appearance, texture, and taste. Sometimes, it is also scored on functionality e.g. pizza mozzarella and halloumi. The judging is a technical examination of



A NEW SOLUTION FOR YEAST AND MOULD CONTROL ON CHEESE

Sacco's 4Protection range consists of food cultures with protective effects that help dairy products stay safe and fresh for longer periods. These unique culture blends exert biological and preservative interactions with the food matrix and spoilage bacteria by producing inhibitory molecules to maintain product quality throughout its shelf-life.

Lyofast CPR 4P1 is Sacco's latest innovation in the 4Protection range. It consists of carefully selected freeze-dried strains of *Lactobacillus rhamnosus*, *Lactobacillus plantarum* and *Carnobacterium* spp. The combination of these strains offers a wide range of protection against unwanted yeast, mould, and gram-negative bacteria, including *Listeria monocytogenes* and general *Listeria* spp. It can be easily applied as a surface treatment on cheese or during processing by direct inoculation of milk, brine solution or cheese cooling water.

BENEFITS

- Easy inclusion and application
- Used in conjunction with starter cultures
- No impact on taste and aroma
- Prolonging shelf-life
- Reduces food waste
- Inhibit growth of spoilage- and pathogenic bacteria
- Clean label

SACCO'S 4PROTECTION RANGE

- Anti Yeast & Mould
- Anti Heterofermentative & *Propionibacterium* spp.
- Anti *Pseudomonas* & Psychrotrophic bacteria
- Anti *Clostridia*
- Anti *Listeria*



the cheesemaker's understanding of the class of cheese based on their milk quality, manufacturing process (including maturation), and quality/performance of ingredients such as cheese and food cultures with protective effects, coagulants (rennet), and various condiments if required. The evaluation is a thorough sensorial test, and each judge is required to give comment on positive or negative attributes noted in order that this feedback can be summarised and sent to the cheesemaker after the announcement of the class winners.

RAW MILK NEGLECT

However, despite judging the best of the best I am adamant that too little scientific attention and resource is given to the integrity of the single biggest



“The cheese is scored for appearance, texture, and taste. Sometimes, it is also scored on functionality e.g. pizza mozzarella and halloumi.”

ingredient of our industry, namely raw milk. Too many cheese producers neglect this, to their own detriment, and end up paying the price later down the line with lower cheese yields and/or flavour defects. These issues inevitably lead to economic losses and sub-standard product being sold to the end consumer. If only they had respected the science of herd health, milking



parlour hygiene, psychrotrophic bacteria, milk spoilage, and raw milk age, and implemented sufficient safety measures to give their cheesemaker/s the best possible opportunity to make award winning cheese every day

It has also been my experience that much of my dairy time is spent doing what I term “renovation” work, i.e., troubleshooting cheese defects and preaching continuous improvement processes throughout cheese plants to ensure their compliance and sustainability. This often takes precedence over innovation work where there is more scope for creative scientific thinking. This is a concerning reflection as technical cheesemaking expertise seems undervalued in this country and, for various reasons, its popularity is rapidly dwindling. Sadly, I don't see our young students queuing to pursue a career in the local dairy industry to be mentored by the few remaining experts either.

BUT WHAT MAKES A GREAT CHEESE?

- Commitment from owners and management to food safety compliance and good manufacturing practices (GMP's)
- Owners or management creating a winning culture ethos within the team by focusing on training, career path development, and attention to detail
- Collective scientific, equipment/mechanical, and organoleptic competency within the cheesemaking team

- Bold creative thinking, passion, and disciplined dedication
 - Technical knowledge of the class of cheese being produced
 - Regular benchmarking and taste panel evaluation.
- If all these components are seamlessly integrated, then one will have established a robust foundation from which to launch into submitting a potential SA Dairy Championship cheese class winner.

Synercore – www.synercore.co.za