

# Milk Essay

Vol 11 • no 1 • January • February 2019

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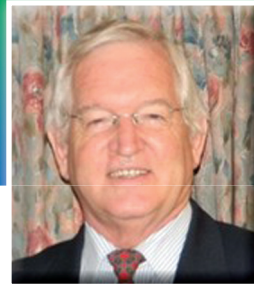
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## A DAIRY LIBRARY established at MILK SA



Dr Jan Floor



An opportunity was identified at our new offices in Nieuw Muckleneuk, Pretoria, to establish a formal dairy library which is in the process of refurbishment. Dr Floor is the first person to have made a contribution to this library, when he made an immense donation of books, which vary from technical journals to annual reports of

the Dairy Industry Control Board in 1946. Dr Floor, previously from Clover SA, is the Technical Secretary of the SA National Committee of the IDF and involved in Milk SA's R&D structures. Milk SA is truly grateful for this donation which will be preserved and used for the benefit of our dairy industry.

## DoE REQUESTED TO RECONSIDER PROPOSAL ON RYE GRASSES

At a Milk SA General Meeting held in Pretoria, Dr Heinz Meissner, R&D Programme Manager, mentioned that the Department of Environmental Affairs (DoE) had decided in a policy document to list the rye grasses *Lolium multiflorum* and *Lolium perenne*, which are used on the South Eastern Seaboard where more than 50% of South Africa's milk is produced, as category 2 invaders.



Dr Meissner said the problem was in terms of practicality and that in order to make use of the grasses, permits would be required by both the farmers and the seed company, in addition to which inspections would also be carried out on farms. He said he had therefore requested the DoE to reconsider their proposal in this regard.

# RICHARD HUTTON appointed as board member on food-bev SETA



*“The success of skills development in the secondary industry can be ascribed to an organized dairy industry”, said Richard at the meeting of the Subcommittee: Skills Development, Secondary Sector held on 7 August 2018.*

Richard Hutton was appointed as a board member of the FOODBEV SETA Accounting Authority effective 1 April 2018 to 31 March 2020. In this role, he will represent the SETA's Dairy Chamber, which predominantly comprises SAMPRO affiliated dairy organizations. Richard takes this role over from Willie Prinsloo, who tirelessly filled this position for many years and served a term as the SETA Chairman.

Richard has worked for Woodlands Dairy since 1998 and is currently their General Manager for Human Resources. He has been an active member of SAMPRO and Milk SA Transformational Committees for many years.

He believes that the secondary dairy industry structures provided by SAMPRO to identify training and development needs related to the manufacturing of dairy products, has been beneficial to the industry as a whole and assisted in uplifting the skills levels of employees within the sector. A prime example, he says, has been the development of the Dairyman Qualification that was developed in consultation with major industry role-players, which will provide employees with access to occupational based trade qualifications recognized by the Quality Council for Trades and Occupations (QCTO).

# Consumer education project contributes to SCHOOL MILK DAY



For World School Milk Day 2018, the Consumer Education Project (CEP) of Milk SA teamed up with the Department of Basic Education and the Milk Producers Organisation (MPO) for the month of September.

Teachers at participating schools received copies of a teacher's guide to help prepare for a lesson on dairy and healthy eating, and activity sheets to share with their learners. The MPO supported the educational campaign by providing milk, donated by milk processors, for every learner from the participating schools on the day.

As part of CEP's school programme, learning material is available for learners in the Foundation Phase (Grade R to Grade 3) and Grades 5 and 6 of the Intermediate Phase. For the Foundation Phase, the theme is 'From farm to fridge' and the teacher's guide covers topics such as why dairy is healthy and should be part of the daily diet, dairy products and processing, dairy farming, and dairy cows and goats.

The material for the Intermediate Phase is titled 'Guidelines for healthy eating' and explains the South African food-based dietary guidelines (FBDGs). Readers will learn what the FBDGs are, why each one is important and how to use the FBDGs in their daily diets to ensure a healthy lifestyle.

In support of this campaign, the Consumer Education Project of Milk SA also developed, specifically for World School Milk Day, a quick guide about different types of milk and how to use it. Six brief messages are included and learners can take a copy of the information sheet to share with people at home.

All educational material can be downloaded from [www.dairykids.co.za](http://www.dairykids.co.za)

Hard copies can be obtained from the Consumer Education Project of Milk SA by sending an email to [info@rediscoverdairy.co.za](mailto:info@rediscoverdairy.co.za)

Milk is full of nutritional goodness. Here is how you can be sure to get the best from the milk you buy.

# World School Milk Day

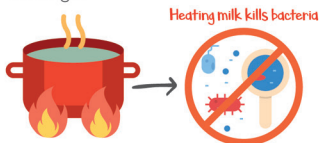


## What is pasteurised milk?

**Pasteurised milk** is milk that has been heated to at least 72 °C for a minimum of 15 seconds and then cooled rapidly to 4 °C. Pasteurisation is one of several heat treatments used to destroy harmful bacteria that may be present in food. Pasteurisation ensures that milk is safe for human consumption and extends its shelf life. Fresh, pasteurised milk always requires refrigeration.

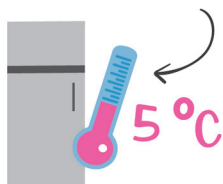
In contrast, **raw milk** is milk as it comes from the cow. Raw milk has not been heat treated and may carry bacteria that can have health risks. Raw milk is not safe to drink and should be heated before use.

To heat treat raw milk, use a clean pot and heat the milk until small bubbles appear on the side of the pot. Do not let the milk boil. Remove the milk from the heat, cover it and let it cool down and store it in clean, dry containers in the fridge.



## Storing milk at home

All fresh milk must be **refrigerated** (stored at below 5 °C). Fresh milk can be kept in the refrigerator for 4–7 days, provided the milk was kept cold from when it was bought. UHT milk (long-life milk) must be treated as fresh milk once the package has been opened.



## Understanding UHT milk

**UHT milk** is often called long-life milk. UHT, short for ultra-high temperature treatment, is a process used to produce milk with a long shelf life. It involves heating milk to a very high temperature (135–150 °C) for a few seconds and then cooling it rapidly to 4 °C or lower. Unopened UHT milk can be stored unrefrigerated for a long time, as indicated on the package. But, once opened, it must be treated like fresh milk and be kept refrigerated and used within 4–7 days.



## How to use milk powder

**Milk powder** is a dry, powdered form of pasteurised milk. The milk is first concentrated in an evaporator, where it concentrates to about 50% milk solids. The resulting concentrated milk is then sprayed into a heated chamber where the water almost instantly evaporates, leaving fine particles of powdered milk solids.

Milk powder must be prepared according to the instructions on the package. Use a clean container and utensils. Do not add more water than indicated in the instructions, as this will dilute the nutrients and reduce the good value of the milk. Only prepare as much as you will need.



## Coffee creamer is not milk powder

**Coffee creamers** are made from vegetable fats and will not provide you with the nutrients found in dairy. Coffee creamers have no calcium, protein or any of the other important nutrients found in milk. Coffee creamer can never replace formula milk for babies or milk in children's diets.

## Understanding the shelf life of milk

A product's shelf life refers to how long it can be stored without spoiling. **The shelf life of milk depends on the type of milk.**

- Fresh, pasteurised milk can keep for 4–7 days at temperatures below 5 °C.
- Unopened UHT milk can be stored unrefrigerated for up to 6 months.

The 'best before' date (shelf life) on the packaging will indicate until when the milk will be good for consumption.

It is best to buy heat treated milk such as pasteurised or UHT milk.

# Dairy Industry water stewardship working group kicks off –

Source: MPO Bulletin, 24 August 2018



*Left to right: Dr David Lindley – WWF, Henk van der Hyde – Danone, Barbara Bieldt – MPO, Dr Chris van Dijk – MPO, Sue Viljoen – WWF, Dr Craig Galloway – Trace and Save, Dr Heinz Meissner – Milk SA and Gary Smith – Nestlé*

The Milk Producers' Organisation (MPO) and WWF South Africa (WWF-SA) recently hosted the first meeting of the Dairy Industry Water Stewardship Working Group in Pretoria. The aim of this working group is to identify the priorities and opportunities to improve water stewardship throughout

the dairy value chain. Representatives from the WWF, MPO, Milk SA, Danone, Trace and Save and Nestlé initiated a process to develop appropriate action plans to address the careful and responsible management of this precious resource through actions that will affect changes on ground level.

## DAIRY FARM GHG EMISSIONS VERSUS GLOBAL BASELINE & GHG TARGETS FOR SA INDUSTRY



The Dairy Sustainability framework (DSF) of the IDF proposed that the Baseline for the global dairy sector should be set at the FAO (2013) figure of **2.9 CO<sub>2</sub> eq per kg of fat and protein corrected milk (FPCM)**. It is accepted that different countries will vary substantially as GHG emissions are influenced by milk yield, feeding practices and efficiency of production. Thus, the figure for some developed country industries is as low as 1.6 CO<sub>2</sub> eq per kg FPCM, whereas the

figure of Sub-Saharan Africa is 9.0 CO<sub>2</sub> eq per kg FPCM. Although we do not have exact figures for South Africa, the most probable figure as an average is 2.2 to 2.5 CO<sub>2</sub> eq per kg FPCM per day, which is already below the suggested Global Baseline. However, as the average milk yield per year of the national herd is a modest 5600 litres, **we should set a target of 7500 to 8000 litres per year and 1.5 to 2.0 CO<sub>2</sub> eq per kg FPCM per day.**

# Animal welfare in the dairy industry: An authoritative standard developed and available from the **SABS**

*Dairy producers are advised to purchase a copy of the Standard [SANS 1694:2018 (The welfare of dairy cattle). It is available from the SA Bureau of Standards (SABS) in Pretoria.*



The South African Bureau of Standards (SABS) recently published the South African National Standard – SANS 1694:2018 relating to the welfare of dairy cattle, which forms part of similar initiatives for other livestock species and production systems of the ‘National Committee SABS/TC1094 Livestock Welfare’. The Standard was prepared by dairy industry and other knowledgeable representatives in conjunction with SABS officials. It is in compliance with the agreement of the World Trade Organization (WTO) on Technical Barriers to Trade (TBT) and

was compiled taking into consideration documents such as:

- The IDF Guide to Good Animal Welfare in Dairy Production – 2008
- Animal Welfare and dairy cattle production systems of the OIE – Terrestrial Animal Health Code – 25/7/2017
- Excerpts from the Dairy Development Initiative – Code for the Primary Industry



The importance of animal welfare is well recognized by dairy producers and they have come to realize that it as an essential and traceable part of the value chain for the quality of their products to the consumer. At national level, concerted efforts are made by the organized dairy industry (Milk SA, MPO and SAMPRO) to raise awareness on animal welfare standards.

The Standard by the SABS [SANS 1694:2018 (The welfare of dairy cattle)] is an important step in assisting procedures to adhere to minimum criteria of animal welfare and encouraging producers to incorporate relevant requirements within their overall responsibility towards the health of the dairy herd.

*Dr Heinz Meissner*

## Dr Alf Lategan from Cape Cross receives MSc



Dr Alf Lategan, a veterinarian from CapeCross Veterinary Services in Jeffreys Bay, received his MSc (Vet epi) degree on 5 September 2018. Dr Lategan, who has already been applying skills acquired during his studies – epidemiology, dairy economics and SCC expertise – to the benefit of the dairies in the region, was also part of the mastitis project of Milk SA.

Epidemiology was an inherent part of the course, while economics was in the form of a 40 credit elective with Prof John Fetrow, VMD, MBA (Minnesota) and the SCC expertise came through his research project and dissertation, using Logix data and in conjunction with co-workers at Utrecht University.

“The industry and I are fortunate to have Alf and my first postgraduate student”, says Dr Martin van der Leek.

# MILK SA concludes 2018 on a HIGH NOTE

*With projects which undoubtedly placed the South African dairy industry on a higher competitive level – both nationally and internationally – Milk SA brought 2018 to a successful conclusion.*

Through its continued participation at the highest level in the structures of the International Dairy Federation (IDF), SA proceeded to play a prominent role both on a scientific and strategic level. SA is increasingly regarded as a leading industry and in 2020 the World Dairy Summit will again take place in Cape Town.

Following overwhelming support from DAFF, ARC and the industry, an independent reference laboratory was introduced at DSA, to ensure standardized calibration at SA

laboratories in order to deliver reliable results.

Our Research Programme Manager continued to publish his interpretations of scientific research conducted locally and internationally in *The Dairy Mail* and on our website and took the lead in laying the foundation to re-establish our research capacity regarding parasite resistance in SA.

Attention was given to anticipating the potential impact of Brexit on South Africa and to stating the SA dairy industry's position



*Members and guests at the General Meeting held in November 2018*

and needs in the Agricultural Trade Forum and Animal Health Forum. As a result of the growing tendency to import long life milk, a work group was established to discuss the impact of imports and possible remedies.

The MPO continued to offer support to black entrepreneurs through its accredited courses and the provision of material support by means of Milk SA's Enterprise Development programme. In the secondary industry, the greatest milestone was no doubt the development of the "Dairy product analyst" curriculum with its eight part qualifications, which will receive further attention from SAMPRO in 2018, with a view to finalization and registration by QCTO.

The Consumer Education project published

numerous articles in magazines such as *Sarie, You, Drum, Huisgenoot* and *Move*. A new TV advertisement and a social media campaign for 2019 was created and considerable progress was made regarding the registration of dieticians and the enrichment of their expertise and awareness of dairy. In 2018, 975 health promoters from the Department of Health in the Eastern Cape and Limpopo were trained and educational material for primary school learners was updated.

The multifaceted nature of the industry therefore requires expertise in specific specialist fields as well as a disciplined approach by MPO and SAMPRO (as members of Milk SA) to identify and manage challenges effectively and in a coordinated manner within the Milk SA context.

## Skills development, secondary industry sector

### *Pilot study for Milk Reception Operator*

Herman Cloete was the first learner to be assessed in the pilot study for the Liquid Dairy Raw Materials Reception curriculum based qualification, which is in the process of evaluation for registration. To us red-blooded dairy people, the qualification will always be affectionately known as Milk Reception Operator.

Gerhard Venter assessed Herman at Clover SA's Lichtenburg plant. He proved to be

(exceptionally) competent and scored 93% for the theory component (and obviously 100% for the practical, with a comprehensive portfolio of evidence for the experience learning).

***Congratulations Herman!***



## REPORT ON A SECTOR ROUND TABLE ENGAGEMENT BETWEEN THE ECONOMIC ADVISOR TO PRESIDENT RAMAPHOSA AND INDUSTRY CEOs, HELD AT THE BUSA OFFICES, SANDTON ON 10 SEPTEMBER 2018.

The overarching message from industries was that Government should deliver on the basic elements in terms of public security, water, electricity, infrastructure (especially regarding rail and road transport and harbour facilities), organizational structures within Government to improve on staff stability, communication and harmonization. Industries also signalled that land expropriation without compensation would be detrimental to economic growth.

*A number of agricultural and fishery industry bodies recently met with the Economic Advisor to the President on the challenges and constraints facing specific sectors and to identify opportunities for investment. The event was arranged by BUSA and feedback from the engagement would feed into the President's Investment Summit of October 2018. The organized dairy industry was represented by Nico Fouché, CEO of Milk SA.*



Nico emphasized the recently-completed NEDLAC process, which boded well in terms of co-operation with government in all the relevant areas. He however pointed to a few pressing issues that needed to be addressed urgently. In terms of animal health, he stressed that exports in particular suffered severely due to constraints in DAFF regarding human and other resources, including insufficient veterinarians and a lack of harmonization between DAFF and provincial departments and between the public and private sector.

The appointment by DAFF of a profit seeking company as assignee for certification of compositional standards instead of the Dairy Standard Agency was raised and Dr John Purchase from Agbiz highlighted this as an issue for a number of agricultural industries that warranted attention.

In terms of the President's wish to showcase successes in order to lure investment, the Advisor was informed that many of the world's leading milk producers, processors and scientists are found in South Africa; that there are a number of viable transformation projects; and that the performance of the dairy industry in general – amidst difficult circumstances – is outstanding.