

# Milk Essay

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Photo by Nico Fouché – Albertinia area

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This is a publication of Milk SA. Milk SA was founded by the primary and secondary dairy industry sectors to promote a healthy South African dairy industry.

## MILK SA TAKES A FIRM GRIP ON CUSTOMS AND MARKET ACCESS

The discipline of "Customs and Market Access" will henceforth be positioned as an Industry Information project of Milk SA and the Office of SAMPRO will take responsibility for the management and administration, with De Wet Jonker as Project Manager. This follows a decision by the Milk SA Board of Directors after considering a report in this regard.

A large number of very different specialized technical issues (fields of knowledge), acts, regulations, procedures and different institutions in the public sector (national, provincial and local authority levels), are relevant for the

envisaged project, as they all influence the imports and exports of dairy products.

To deal successfully with the numerous and varying specialized technical issues, the project will make use of the expertise available in the DSA, MPO, SAMPRO and Milk SA.

In order to ensure coordinated and integrated actions by the project, a Management Committee for the project has been established, comprising De Wet Jonker (Project Manager), Alwyn Kraamwinkel (Chairman), Barbara Bieldt and Jompie Burger.

The two other projects under the Industry Information discipline are "Collection, processing and dissemination of national and international information" under contract and management of the MPO, and "Participation of the SA dairy industry in the International Dairy Federation" under contract and management of the SA National Committee of the IDF (SANCIDF).

A more detailed report on this topic appears on Milk SA's website.

## "Real Dairy Mark" prohibited

The "real dairy" mark was originally an initiative of the Dairy Board to protect authenticity and the administration thereof was transferred to the MPO in the late nineties. However, for several years the mark was not administered, eventually becoming a "free for all". The purpose of the mark faded and it was generally seen as a quality mark.

The use of the "real dairy mark" was subsequently prohibited by DAFF in terms of the Regulations relating to dairy products and imitation dairy products (R2581/1987) - to be replaced with R260 of 27 March 2015, pertaining to the classification, packing and marking of dairy products intended for sale in the Republic of South Africa. The prohibition remains in place in terms of R260 of 27 March 2015, effective from the end of March 2016.

## "Organic" on Labelling

### - Yes or No?



Jompie Burger  
MD of the Dairy  
Standard Agency

Jompie Burger (Dairy Standard Agency MD) says that in terms of the labelling regulations of the Department of Health, R146 of 1 March 2010, provision is made for control over misleading descriptions referring amongst others to products which lay claim to wording such as free range and organic; and that such claims are permitted subject to specific protocols registered with DAFF, in terms of the Agricultural Products Standards Act, 1990 (Act 119 of 1990), or in terms of the National Regulator for Compulsory Specifications Act, 2008 (Act 5 of 2008). Subsequently R146/2010 was amended and the term "organic" was omitted from the regulation since DAFF inspectors could not be authorized in terms of the scope of the existing Agricultural Products Standards Act, 1990 (Act 119 of 1990). This led to proposed amendments to the Agricultural Products Standards Act,

hence the publication of the Agricultural Products Standards Amendment Bill of 2015, which is currently being circulated for public comment.

In DAFF's Regulation R260 of 27 March 2015, which becomes effective at the end of March 2016, "organic" is defined as "a product which has been produced, processed and handled in compliance with organic production standards and certified by a recognised accredited certification body or authority". It states further that the word "organic" shall not be

labelled on a container of a dairy product unless in compliance with the definition.

In the interim, DAFF approached the SABS to establish a standard for "organic". Jompie strongly advises companies wishing to market products as organic, to liaise with DAFF prior to the development and printing of labels to ensure compliance with R260.

ORGANIC

# rBST CLAIMS

"The use of rBST as stimulant in milk production is legal in South Africa. This however does not mean that all milk producers/processors endorse the use thereof. rBST is the artificially engineered version of the bst hormone that naturally occurs in milk and until now it has been very difficult to distinguish between rbst (recombinant bovine somatotropin) and BST in final product globally. As a result of no empirical scientific research having found the responsible use of rBST to be a food safety risk, the use of rBST will remain a contentious issue and is mainly driven by ethical values and animal welfare. During liaison with the Department of Agriculture, Forestry and Fisheries (DAFF) who is the administrator of the Agricultural Products Standard Act and the Department of Health (DOH) who is responsible for the Foodstuffs, Cosmetics and Disinfectants Act, it became clear that the use of the term "rBST free" could be misleading, as the hormone is

injected into the cow with only derivatives found in the milk.

To this effect R260 of 2015 in terms of the Agricultural Products Standards Act states that no word, mark, illustration, depiction or other method of expression that constitutes a misrepresentation or directly or by implication, creates or may create a misleading impression regarding the quality, nature, class, origin or composition of a dairy product or an imitation dairy product, shall be marked on a container of such product. R260 states further that no claim regarding the absence of any substance that does not normally occur in a dairy product or an imitation dairy product shall be marked on the container of such product, except in cases where the negative claim is allowed for in the regulations published under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No 54 of 1972)."

## To "Free Range" or Not?

The new R260 dated 27 March 2015 in terms of the Agricultural Products Standards Act, 1990 (Act 119 of 1990) stipulates the following:

*"The words "natural", "super", "extra", "pure", "fine" or any other word or expression that directly or by implication creates or may create the impression that a dairy product or an imitation dairy product is of a special or particular quality*

*shall not be marked on the container of such product."*

In terms of regulation 47(1) of regulation R146 dated 1 March 2010 of the Department of Health, claims such as "grass fed" or "free range", etc. will only be allowed on a foodstuff regulated by the Department of Agriculture, Forestry and Fisheries (DAFF) if (a) a protocol

## Milk SA's Projects under the Magnifying Glass



Milk SA's projects – both in terms of substance and strategy – were the focal point of deliberations by the Board of Directors on 2 and 3 February. The Board, who relies heavily on the advice of its Advisory Committees and work groups, concurred that the projects were being successfully managed and were still promoting the strategic objectives set for the dairy industry – namely to broaden the market for South African dairy products, to improve the competitiveness of South African dairy products, and to promote transformation.

has been registered with the DAFF, or (b) the regulations administered by DAFF provide for the use of such claims. Unlike in the case of "organic", the new dairy and imitation dairy regulations (R260) do not make provision for (a) either the registration of any such protocols, or (b) the use of such claims and therefore these claims are currently prohibited on any dairy product.

## Threat of Listeria Monocytogenes on the rise



Prof Piet Jooste

Prof Piet Jooste contributed to a recent review publication in the African Journal of Microbiology Research, under the title "Listeria monocytogenes in food: Control by monitoring the food processing environment".

The article stresses the fact that, as consumer demand for less processed, less preserved, longer shelf-life ready-to-eat food increases, the threat of Listeria monocytogenes to public health and the food industry continues to rise. In addition to being a public health threat, L. monocytogenes is a major economic burden on industry in terms of costs of analyses and potential product recalls. Novel biocontrol methods such as bacteriocins and bacteriophage are suggested to prevent cross-contamination of food from the environment.

Prof Jooste is a member of the Research Project Evaluation Committee and other Advisory Committees of Milk SA. The full article can be viewed on <http://www.milksa.co.za/news>.



# SELLING RAW MILK...

## THE ORGANIZED INDUSTRY'S ROLE

Raw milk defined in terms of national health legislation means milk that has not undergone pasteurization, sterilization or ultra-high temperature treatment. Raw milk for direct consumption is generally considered to be of higher risk due to its potential as a carrier of harmful bacteria not normally associated with pasteurized milk. The general convention is that while the milk is in the production system of a healthy cow it is considered to be virtually sterile.

However, everything changes when the milk is exposed to the teat canal and the environment. Dairy cows spend much of their time grazing in pastures where they come into contact with a variety of environmental microbes. In addition many microbes that are "commensal" organisms (that co-exist with cows without causing a disease) may be considered human pathogens. In this context, raw milk destined for direct consumption is believed to be more of a health risk as it carries a higher potential of bacterial infection than pasteurized milk, especially if badly handled.

When milk is pasteurized, it is heated to a high temperature and kept there for a set period of time to kill harmful bacteria such as *Listeria*, *E.coli*, *campylobacter*, *salmonella* and others. Pasteurized milk is certainly not sterile, it simply carries less potential bacterial risk than raw milk. It is still possible for pasteurized milk to become contaminated however and like any other food product, it should

be handled carefully (hygienically) and kept under proper refrigeration.

As an industry self-regulatory initiative, the Dairy Standard Agency (DSA) through its Milk SA funded "National milk and other dairy product monitoring program" quarterly monitors milk and other dairy products in collaboration with health authorities nationally. Although the majority of dairy products perform satisfactorily, a major concern lies with the categories packed unpasteurized, retail bulk pasteurized and unpasteurized milk, which continuously indicate a negative compliance rate in critical food safety standards. This is mainly due to poor control measures and the unlawful sale of substandard milk to the end user.

Food safety aspects of dairy in South Africa are governed by the Foodstuffs, Cosmetics and Disinfectants Act, 1972, Act 54 of 1972, Regulation 1555 of 21 November 1997. It is illegal to sell raw milk in South Africa for direct use unless the specific municipality where the sale is taking place is authorised to do so in terms of R1555. Even then, raw milk should be dealt with cautiously and rather be properly heated prior to use.

In terms of its project protocol and relationships with the relevant authorities, the DSA constantly works with the relevant law enforcement bodies, providing support through dairy technical information, workshops and guideline documents to limit the sale of non-conforming dairy such as raw milk.

## INTERN ASSIGNED TO MILK SA

Thandeka Ntshangase was placed with Milk SA as an intern by the National Agricultural Marketing Council (NAMC). She obtained a BSc degree in Agricultural Economics from the University of KZN and has shown a keen interest in all facets of the dairy industry.

When asked about her experience with Milk SA, Thandeka said "In the few months that I have been with the company I have been able to harvest new skills, as well as cultivate the skills that I have. I have been working with Mr Godfrey Rathogwa who is a director and Transformation Manager at Milk SA. He has assisted me to understand the dairy industry

from a South African, African and world perspective. At the NAMC, I was assigned to work with Dr Simphiwe Ngqangweni who is Manager of the MERC (Markets and Economic Research centre) division and working with him has given me exposure to research, trade, Agro-food chains and small-holder farmers which has been exhilarating. I just hope that I will soon be absorbed by the industry so that I can continue to contribute towards building South Africa."



## Audit and Risk Committee Under New Leadership



From left to right, Nico Fouché (CEO of Milk SA), Willie Lubbe and Danie du Plessis (new Chairman of the Audit & Risk Committee)

At the end of 2015, Milk SA took leave of its Audit and Risk Committee Chairman, Willie Lubbe who resigned due to ill health. Willie, who held this post since 2006, did invaluable work and played a key role in laying solid foundations for Milk SA's financial systems.

Danie du Plessis, who retired recently from PWC as director, will follow in Willie's footsteps. Fortunately, the handover could take place smoothly.

## Milk SA objects to VAT on milk

Milk South Africa, with input from its members, the MPO and SAMPRO, as well as members of the Dairy Regulations and Standards Advisory Committee, has objected to The Davis Tax Committee's recommendation to impose VAT on milk and fruit.

The recommendation by The Davis Tax Committee was made based on the assumption that the zero-rate concession benefits wealthier households more than poorer households.

In its reaction to this recommendation, Milk SA asserted that milk is a basic nutritional source with a high degree of penetration in all spheres of society, and that a disturbance in consumption patterns of milk, owing to higher consumer prices, would inevitably lead to a disturbance in the consumption of complementary foods such as maize meal and bread.

Milk SA said further that the dairy industry operates in an unprotected market environment and is exposed to nature – as well as volatile and international market conditions – and that the effect of an additional macrofactor such as VAT on milk could shrink the industry, with lower-income groups in particular turning to less nutritious substitutes, such as tea and coffee creamers.

## SABS WORKING GROUP DEVELOPS STANDARD ON DAIRY CATTLE WELFARE

This draft standard is aimed at providing guidance to owners of dairy cattle and persons who are responsible for dairy cattle. It will include requirements for the provision, design and maintenance of facilities and equipment, the allocation of operational responsibilities, as well as the competence and supervision of employees.

Organised dairy industry members participated actively in the process of drafting the SANS 1694 document. The last physical meeting for this purpose took place on 9 June 2015, with most of the tasks being assigned to working group members who duly attended to outstanding issues such as the locomotion scoring index, which was communicated to the technical committee and subsequently discussed on 24 November 2015. Once issues are finalised the document will be sent out as a SABS committee draft for voting and commenting.

## See you at the 2016 WDS in Rotterdam



The IDF World Dairy Summit 2016 will take place from 16 to 21 October in Rotterdam, The Netherlands. The Summit is composed of a series of topical scientific-technical conferences, social events and technical tours. Participants will gather to network and familiarize themselves with the latest research findings and experiences relevant to the global dairy sector in the broadest sense. The major challenge for the global dairy sector is how to help nourish a growing population in a sustainable way. Topics to be addressed in the program, relate to:

- Economics (including livelihood) in the sector
- Nutrition
- Sustainability
- Marketing/communication
- Food safety
- Farming and Farmers
- Dairy development
- Technology
- Standards

Speakers from outside will present challenging views on topics, reflecting the opposing views in the outside world. The programme also provides for a farmers' event which concentrates on the farmers' view and is therefore marked "farmers only". The three days of sessions will close with the presentation of the Declaration of Rotterdam, which is

a comprehensive statement on how the dairy sector is going to respond to the various challenges as set by the Sustainable Development Goals of the United Nations. Attractive Technical Tour programmes are scheduled to take place over the last two days of the Summit showing the best of the Dutch dairy sector.

For more information go to <http://www.idfwds2016.com>

For enquiries on any of these items or any other IDF related item, please contact Edu Roux at the SANCIDF office at 0128435701 or 0823387820 or send an e-mail to [edu.roux@agricconnect.co.za](mailto:edu.roux@agricconnect.co.za)



# MASTITIS

## - RESULTS OF A PILOT TRIAL TO ESTABLISH WHETHER ISOLATED BACTERIOPHAGES WILL KILL STAPHYLOCOCCUS AUREUS

The bio-control studies with bacteriophages instead of antibiotics are done at the UKZN. Bacteriophages (phages) are viruses which are natural control agents of bacterial pathogens - in this case **Staph. aureus**. The reason for using phages instead of antibiotics is because some **Staph. aureus** strains show resistance to the antibiotics on the market.

Three promising phages which were previously isolated in the UKZN laboratory, were mixed together in 40% glycerol and sprayed into the teats of three cows with mastitis daily during morning milking for 21 days. Three other cows with mastitis were sprayed with 40% glycerol only and acted as controls.

Interestingly, the treated cows showed higher SCC during the treatment period

compared to the controls, presumably because of an immune response, but also suggesting that SCC results can sometimes be confusing in mastitis cases. The treated cows showed lower counts of **Staph. aureus** than the controls and the counts declined towards 21 days, whereas in the control cows, counts increased. With further analyses, low concentrations of phages were also isolated from control cows (showing the local enemy of the pathogen), but in the treated cows, the phages multiplied and dispersed to all mastitis infected areas and to the host **Staph. aureus** to produce even more phages.

Although this was a pilot investigation with only six cows, the results are promising. The next phase is to repeat the trial with a large number of cows. Watch this space!

## MPO gets Go Ahead from Minister

The Minister of Agriculture, Forestry and Fisheries approved the MPO's application for the continuation of statutory measures for the primary dairy industry sector. The MPO will continue to administrate the regulations, which compel milk producers to register with and submit annual returns to the MPO.

In a nutshell, the objectives of these two regulations, as published in Government Gazette No 39613 of 22 January 2016, are as follows:

- To maintain a database to publish reliable industry statistics.
- To identify steps in dairy farming which are critical to ensure food safety.
- To keep record of the dairy cattle population to follow changing population trends, so as to

## FIGHTING LIVER FLUKE

– Dr Heinz Meissner,  
Milk SA R&D Programme Manager

"In Milk SA's R & D Programme, the liver fluke problem is being addressed from different angles. Dr Jan van Wyk of UP, Onderstepoort as Project Leader is studying the distribution, seasonality, prevalence and active/dormant cycles of the parasite and its host snail in the Tsitsikamma area. It is expected that this will provide guidelines to dairy farmers for better management in order to limit prevalence, but specifically also to become less dependent on dosing, as anthelmintics are becoming noticeably less effective because of parasite resistance. Because of this, alternative control measures are being investigated, such as naturally occurring products which can kill the fluke and/or the snail, and this is the focus of the group under Prof Mark Laing of UKZN. Obviously, there should be cohesion between the projects to ensure efficiency and cost saving and therefore I brought the Onderstepoort and UKZN groups together for intensive discussions on Wednesday 3 February. The outcome of the Meeting is expected to facilitate coordination and common end goals."



Dr Heinz Meissner



Prof Mark Laing of the University of KZN (right) with Dr Mawahib Ahmed, the postdoctoral researcher who will be managing the project on a day-to-day basis.



Dr Jan van Wyk of UP, Onderstepoort is studying the distribution, seasonality, prevalence and active/dormant cycles of the parasite and its host snail in the Tsitsikamma area.

assist the dairy industry in steering its educational, research, extension and health programmes.

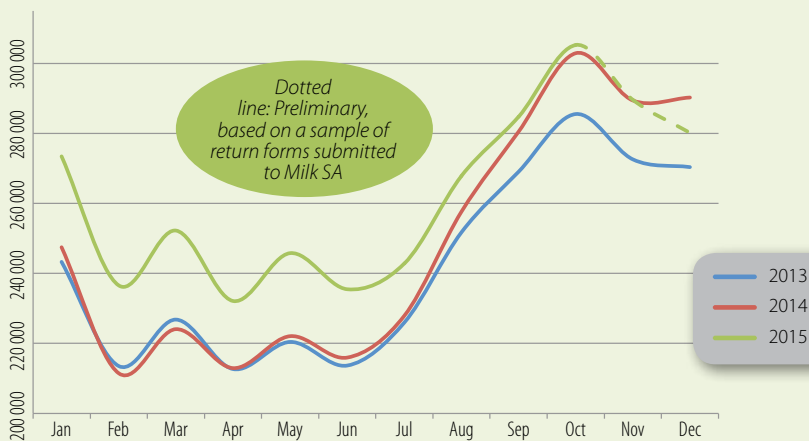
- To facilitate statutory support in terms of veterinary inspection, extension, health and quality control services.
- To obtain producer input on animal health, production quality, genetics and feeding, in order to conduct research proactively where problem areas are identified.

# Trends of Monthly Unprocessed (Raw) Milk Purchases in the RSA: 2013 to December 2015

Milk purchases for December 2015 were 3,47% lower than the amount bought in December 2014.

The total milk purchased as reported for 2015 (up until December) is 3,146 million tonnes, versus 2,983 million tonnes in 2014 (for the same period), which is an increase of 5,48% for the year-to-date.

Tonnes of unprocessed milk



- Source: Milk SA Statistics (from monthly return forms).
- Note: 2013 - 2014 Reviewed, based on total figures declared to Milk SA.
- The composition of the sample (to determine the preliminary figures for the last two months) was amended because of changes in market participants' market shares of milk purchases.

**George Kuyler**, a milk producer from George in the Western Cape has been appointed to the Milk SA Board of Directors to replace Tom Turner from KZN, who resigned towards the end of 2015, after having served as director for four years.





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Thank  
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