

Milk Essay

VOL 2 NO 1 • APRIL 2011



REGULATION 2581	2
MAKE SENSE OUT OF DAIRY RESEARCH	2
MASTER AMONG MASTERS	3
THE ARC SHARES ITS VISION	5
FMD OUTBREAK IN KWAZULU-NATAL	6
YOUNG AND OLD REDISCOVER DAIRY	7
DAIRY DIGITS: APRIL 2011	8
EXPORT CERTIFICATION	10
SOFT FLOORING	11
DSA ON THE SAMPLE TRACK	12
SAMPRO CHEESE COURSE	12

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.

Regulation 2581

Dairy products and imitation dairy products

Following various inputs by the members of Milk SA (Milk Producers' Organisation and SAM-PRO) as well as the Dairy Standard Agency over the past two years on the revision of Regulation 2581 and following a series of consultation between the organised dairy industry and the Department of Agriculture, a final draft regulation was put forward to the department for consideration prior to publication for public comment.

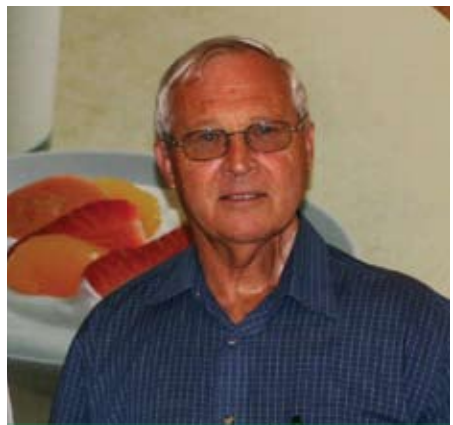
As there are so many technical issues that impact on the various industry stakeholders in different ways, careful consideration had to be exercised in the process. A number of additional experts were co-opted to the Regulations and Standards Working Group of Milk SA, and made inputs towards the final draft document.

As soon as a date is known for publication in the *Government Gazette* for comments, Milk SA will inform the industry. **ME**

Make sense out of dairy research

Milk SA, in collaboration with its project leader, Dr Heinz Meissner, started a research column on its website. The column aims to summarise certain research topics that fall within the scope of priorities set by the organised industry.

Go to www.milk.co.za and click on 'research'. Here you will find a list of local and international research work which may interest you. One of the research column articles on flooring materials, is published elsewhere in this edition. **ME**



Dr Heinz Meissner

Master among masters

by Izak Hofmeyr



Philip Blanckenberg receives the winners' trophy from Rampie de Wet of the ARC

To be one of the five regional winners in the annual Master Dairyman competition is no small feat. But to be crowned as the master among these masters, is surely something to be very proud of. This year the honours went to the well-known Blanckenberg family of Klipheuwel in the Western Cape.

The Master Dairyman competition is an initiative which recognises excellence in the dairy industry. The competition is held across South Africa every year and the winners of each regional competition automatically become a candidate for the national competition.

The National Milk Recording Scheme serves as the basis of the competition and the top 25% of participants in the scheme (provincial) are considered for the competition. The top 25% of this group then receive silver medals,

and ten producers per province are then considered for gold medals. The master dairyman of each province is selected from this top ten, who are chosen based on an on-farm judging session by a panel of experts. And then the master among masters is crowned during a gala event which this year took place in Bloemfontein.

A national Emerging Master Dairyman is crowned in a separate competition. This year's winner was Mmatli and Wendy Motaung of Rosendal in the Free State.

The Blanckenberg recipe

The Blanckenbergs of Klipheuwel is an established, well-known family in the Western Cape. Boy and Marie's sons, Philip, Koos and Vlok, comprise the fourth generation of dairy



Mmatli and Wendy Motaung, winners in the National Emerging Master Dairyman competition

producers on the farm. And, says Philip, they took a conscious decision to farm together.

"A long time ago we realised that the relationship between us brothers and also our dad, is the one relationship in our lives that simply has to work. That is why we put certain mechanisms in place to ensure that things stay right between us."

The most important part, he says, is effective communication. Although there are many overlapping tasks performed on the farm, each one of them know exactly what is expected of him and what his responsibilities are.

"Every morning we convene in the milk parlour. There we plan our day and inform each other of what is going on in his area. If there are differences of opinion, we sort it out immediately. We don't labour the point."

The other finalists in the competition were Gerhard and Mildred van Rensburg of Nanaga close to Port Elizabeth in the Eastern Cape, the partners Pat Robinson and Willie Pretorius of Lidgeton in KwaZulu-Natal, the

father and son team of Dr Vos and Jan Grey of Ermelo in Mpumalanga, and Kobus and Ronelle Behrens of Ventersburg in the Free State.

Motaung drive

The Motaung family exchanged city life for farm-life nine years ago, when they moved to the farm, Brakfontein close to Rosendal. Wendy is responsible for the dairy (thirty cows in milk), while Mmatli manages the crops and the artificial insemination.

They are very proud of the fact that they have built up the farm without any government assistance. However, life is not easy and they have had their share of bad luck and setbacks. But there is no doubt in their minds that they are living their dream every day.

Milk SA is a financier of the National Milk Recording Scheme and a sponsor of the Master Dairyman competition. **ME**

The ARC shares its vision

In a follow-up meeting with Dr Moephuli, president of the Agricultural Research Council (ARC), and senior officials of his staff, Milk SA gained insight into the ARC's vision, especially with a view to the implementation of the Memorandum of Understanding between Milk SA and the ARC. Dr Moephuli shared the following with us:

- The ARC and Milk SA should broaden and intensify their R&D work, focusing on the next five years. He explained that the ARC works within government's medium-term framework. Medium-term planning would enable the ARC to mobilise and manage its resources.
- The ARC expressed interest in ways to come up with a clear focus and implementation plan on the government's national livestock strategy. Money has been designated for national animal improvement schemes, of which the dairy scheme is part. The ARC is interested to know how best to ensure that the schemes deliver on industry and ARC expectations.
- The ARC wishes to assist the industry in developing expertise and to come up with new products that supported competitiveness.
- Smallholders and resource-poor farmers need to be supported in order for them to become commercial dairy farmers. The ARC is eager to get going with programmes in this regard. The question was how to involve the well-organised dairy industry.
- Because of the research projects in which the ARC is a partner, the council received a significant amount of money from the



Dr. Moephuli

National Research Foundation under the Technology and Human Resources for Industry Programme (THRIP) in 2011. These monies needed to be invested in the research programme, which directly related to industry requirements. A condition for the investment was that students needed to be involved in the programme. He mentioned that almost no response was received for jobs advertised by the ARC. The same was experienced by other research institutions such as the CSIR.

- The ARC recently completed a detailed study together with government, on the ARC's need to fulfil its own mandate. The ARC board submitted the study to the minister. He explained that the study basically informed government as to whether the ARC was appropriately funded or not, and what the most appro-

ropriate levels of funding should be. It was hoped that the Minister would study the report soon and that she would submit same to Parliament.

- Regarding the “green economy” or “bio economy”, the ARC intended to look more into dairy projects and how best to deal with waste such as the recycling thereof to minimise costs.
- The ARC has launched a new biotechnology platform, where a range of highly advanced equipment and highly skilled individuals were pooled to generate data for specific programmes. One such completed project involved a high throughput frequency machine to sequence the genome of dairy cows within 48 hours, at a much lower cost than other techniques.
- One challenge was to increase the number of dairy producers. The ARC is willing to

structure specific training programmes in partnership with the dairy industry.

- The ARC is in the process of putting together an extension programme in which the council would partner with government and non-governmental institutions. The ARC believes that there should be a closer link between extension and R&D. The ARC, in conjunction with the Wageningen University in the Netherlands, is involved in a training programme for extension officers under the R&D programme.

Other programmes involve technical issues such as improvement of nutrition and productivity. Dr Moephuli also mentioned that the majority of the adult population is lactose intolerant. Ways should be found to improve the digestibility of milk for the majority of this population. [ME](#)

FMD outbreak in KwaZulu-Natal

Soon after the outbreak of foot-and-mouth disease (FMD) in Northern KwaZulu-Natal during February, the Milk SA board of directors established a committee, not only to deal with the current situation, but also to consider proactive steps and to draft a code of conduct to regulate procedures in the case of possible future outbreaks.

Milk SA was unfortunately not successful in its attempts to meet with the Department of Agriculture. However, committee members (Mr Nico Fouché, Mr Alwyn Kraamwinkel and Dr Nico Schutte) did attend a meeting called by the department involving all affected industries.

It was agreed at the meeting that:

- Vaccination would start immediately.
- The Department would communicate regularly with the relevant industries.
- The location of buffer fences would be re-evaluated.
- The industries would be requested to constantly assist in monitoring the disease and to convey information to the Department.
- The Department would draft an operational plan to reinstate our FMD-free status.
- To revive the Animal Health Forum that was established among industries and government in order to attend to all animal health risk factors strategically.

The annual value of livestock exports to Africa is estimated at some R470 million. [ME](#)

Young and old rediscover dairy



The 'Rediscover Dairy' website (www.dairy.co.za) is an Initiative by the Consumer Education Project of Milk SA. Building a healthy lifestyle with dairy is just a click away!

These online resources can show all South Africans how to make the most of dairy.

The Consumer Education Project's online portal features up-to-date, science-based information on dairy products, including research summaries, consumer education material and the South African dairy nutritional analysis tables.

Featured topics include child nutrition, bone health, the importance of dairy for growth and muscle strength, the role of dairy in weight loss and sports nutrition, nutrient richness of dairy and various other topics.

The news room contains information on printed and television advertisements, magazine articles, as well as other important information regarding the department of health's health calendar, e.g. National

Nutrition Week and Osteoporosis Week.

From the download centre users can download all material developed by the Consumer Education Project, i.e. consumer promotional articles and health professional advertorials, print advertisements, leaflets, and brochures as well as posters.

Kids Corner

The Kids Corner is linked to the website and provides useful and practical information on healthy eating for children.

Kids Corner provides information to school educators and includes all the documents pertaining to the dairy school campaign. A calcium calculator provides a monitor to compare calcium intake to recommended intakes for all ages.

More information

Project co-ordinator: Christine Leighton

Tel: 012 991 4164

E-mail: info@dairy.co.za [ME](#)

Dairy Digits: April 2011

Dairy Digits is a Milk SA publication that is published in *The Dairy Mail* monthly and is also available as a Milk SA publication on the Milk SA website, www.milk.co.za.

Item	Period	Value	% change Same period previous year
Milk production (mil litres)	2010	2 587	+3,2
Milk production (mil litres)	Jan 2011 ¹	225	+1,7
Dairy imports ('000 ton)	2009 ²	32,3	-4,7%
Dairy imports ('000 ton)	2010 ²	35,1	+8,3
Dairy exports ('000 ton)	2009 ²	41,8	-2,3
Dairy exports ('000 ton)	2010 ²	34,0	-18,7
Producer price index of raw milk (Base 2000 = 100)	Jan 2011	146,4	-5,2
Farm requisite price index (Base 2000 = 100)	Oct 2010 ³	193,8	+12,9

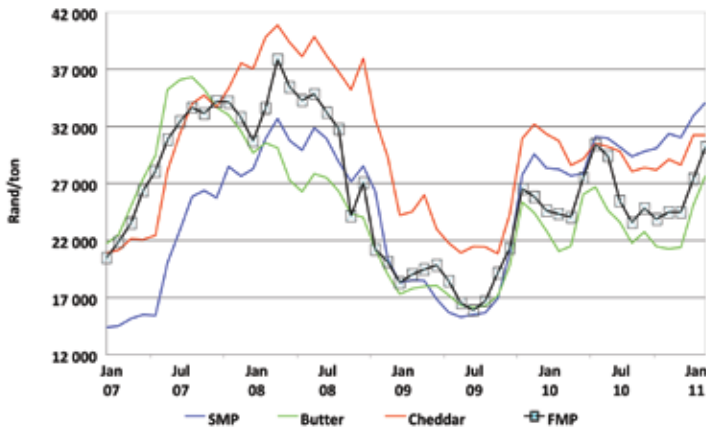
Sources

¹ Milk SA returns

² SARS statistics supplied by SAMPRO

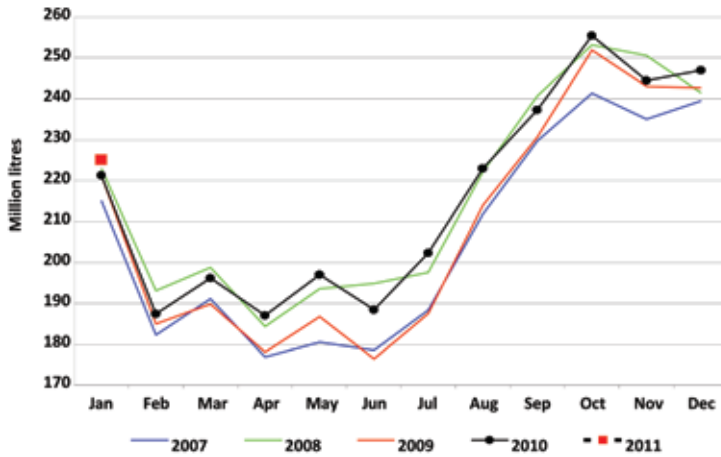
³ Department of Agriculture, Forestry and Fisheries price index of farm requisites

Figure 1: International dairy product prices (free on board), 2007-2011



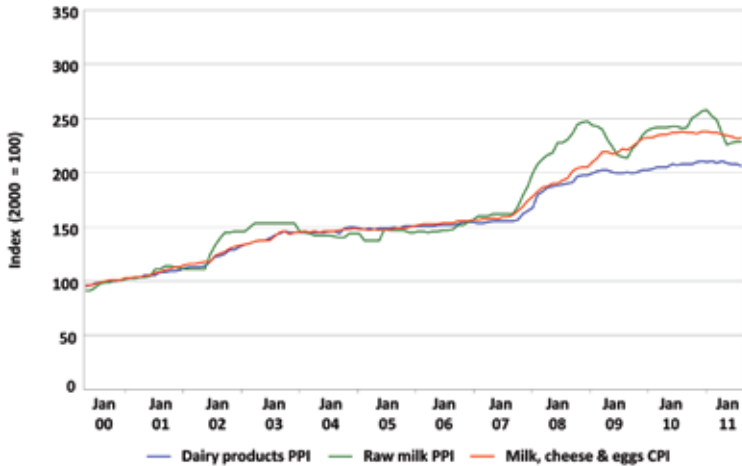
Source: USDA price surveys, exchange rate SA Reserve Bank middle rates, last month average of daily closing values

Figure 2: Monthly raw milk production trend, 2007-2011



Source: Milk SA statistics

Figure 3: Producer milk, manufactured dairy products and retail milk and egg price indices, 2000-2011



Source: DAFF, Stats SA PPI and CPI information (www.statssa.gov.za)

Export certification: Challenges and progress

Exporting dairy products is a source of significant foreign exchange. For the period January to December 2010, the total value of dairy exports amounted to R469 million. Most of our exports (79% of the total quantity in 2010) are destined for neighbouring African countries.

While South Africa was a net exporter of dairy products during 2008 and 2009, that status changed to net importer during 2010. The most commonly exported product is long-life milk and the most common destinations are Mozambique, Zimbabwe and Tanzania. Milk powder and other concentrated products such as cheese, butter and yoghurt, are also commonly exported.

Africa

African countries tend to change their import prerequisites or implement permit control without informing South Africa of these changes. Some of these prerequisites are also not reconcilable with South African standards and procedures. Some countries insist on inspection of local products by an institution other than the PPECB, the agency appointed by the state for this role. This creates more cost and increases the prices of the products to levels which in most cases are already uncompetitive.

Some of these changes that have not been negotiated with South Africa in advance, are in conflict with the protocols that are entered into from time to time with the countries in question. They mostly involve the inappropriate exclusion of products – so-called permit control or non-tariff barriers.

It recently came to light that Lesotho had, without prior notice, implemented permit control, while there is an agreement in place between the BLNS countries that such control

would be negotiated prior to implementing such measures. While there is nothing wrong with the principle, it does cause problems as South Africa received no prior notification, and shipments found themselves suddenly in limbo.

Europe

Exports to the EU ceased a number of years ago due to the fact that South Africa does not comply with EU import regulations. Some of the prerequisites include that the state should have a chemical residue monitoring programme in place, that processing plants must comply with phytosanitary and other prerequisites, and that animal health and welfare prerequisites are adhered to.

Even though export and milk parlour regulations are in place, it was found that the enforcement of the regulations had been divided among the central, provincial and municipal government, and does not rest centrally with the Departments of Health and Agriculture. As a result the regulations are not being enforced effectively.

Milk SA's role

Milk SA has a working group on export certification where its two members, SAMPRO and the MPO, together with the Departments of Agriculture, Forestry and Fisheries (DAFF) and the Department of Health (DOH), are working towards identifying and rectifying weaknesses in the process and system.

Some of the focus areas are:

- That DAFF keeps import requirements of various countries up to date.
- Ensuring that requirements are fair, practical and communicated to the industry.

- Ensuring that protocols are put in place to meet the basic requirements of all countries involved.
- To help ensure that the necessary actions are taken to ensure effective exports and that these measures are implemented effectively.

Ensuring smooth export certification

Milk SA's export certification working group was formed two years ago and both DAFF and DOH are members of the group. Although progress is fairly slow, we can report that:

- A final version of the EU's export certification requirements has been made available.
- Firms indicating that they wish to export to the EU, have submitted the names of

their producers to DAFF.

- The first round of chemical residue samples was taken in March 2010, the results of which were made available to DAFF, indicating compliance with international standards.
- DOH and the Agricultural Research Council offered their assistance to DAFF regarding the collection of samples in a chemical residue programme.
- Milk SA requested DAFF to make available the import requirements of fifteen of the most favourable African countries, eight of which have been received.
- Milk SA will aid DAFF by supplying the department with the basic factors that have to be taken into account in trade protocol negotiations. **ME**

Soft flooring vs concrete

A recent Danish study investigated whether there is an advantage to having soft flooring material instead of concrete (LE Ruud, KE Bøe and O Østerås. Associations of soft flooring materials in free stalls with milk yield, clinical mastitis, teat lesions, and removal of dairy cows. *Journal of Dairy Science* (2010), Volume 93, pages 1578-1586).

The objective in this investigation was to establish whether there was an association between free-stall lying surface softness and milk yield, incidence of clinical mastitis, teat lesions, and culling and mortality of cows.

Study and results

A total of 1 923 Danish dairy farms and 31 779 lactations were involved in the investigation. Bedding material was divided from hard to different degrees of soft, the categories being

concrete (hard), rubber, soft mats, multilayer mats and mattresses (very soft).

The results showed that milk yield between days five and 305 of lactation, was about the same for rubber compared to concrete; was about 2,5% higher on soft mats; and was about 4% higher on multilayer mats and mattresses.

The incidence of clinical mastitis was about the same (14%) on concrete and soft mats, but lower on rubber (12,3%), multilayer mats (11,4%) and mattresses (11,3%). The incidence of teat lesions were 1,7% on concrete and less than 0,8% on the other bedding materials. Culling percentage was not significantly different between concrete, rubber, soft mats and multilayer mats, but lower on mattresses, whereas mortality was 1,1% on concrete and below 0,9% on other bedding materials. **ME**

DSA on the sample track

The purpose of the national milk monitoring programme is to ensure quarterly objective sampling of the four main categories of fresh milk, namely packed and retail bulk pasteurised milk, packed and retail bulk unpasteurised milk sold to the consumer, on a national basis. Results are processed and problem areas identified, which subsequently are communicated to the relevant authorities for appropriate remedial action.

The Dairy Standard Agency (DSA) also provides the sample results, once processed, to the respective processors/packers to implement measures where non-conformances are identified. The same results are also forwarded to the respective government institutions.

In 2010 a total of 2 227 fresh milk samples were submitted for analysis to the Elsenburg and Lactolab laboratories. A total of five metropolitan councils, ten district municipalities and

68 local authorities participated in the national sampling programme.

Results and remedial action

The effect of mere correspondence of non-complying results to the relevant authorities and industry, at times proved to be insufficient to address the causes of non-compliance and to prevent problems from re-occurring. To assist the industry and other stakeholders in this regard, the DSA developed guideline documentation of which the manual for raw milk producers and milk processors (DSA Code of Practice) is the most comprehensive.

Due to the valuable contributions of the guideline documentation towards the promotion of compliance to compositional and food safety standards, the DSA will continue with the review and expansion thereof during 2011. [ME](#)

SAMPRO cheese course

SAMPRO presented another successful workshop in cheese-making from 22 to 25 March. The workshop focused on ripened cheeses and aimed to orientate cheese-makers as to correct procedures regarding cheese-making processes. The workshop addressed issues such as cooling and moulding techniques, brine testing and general hygiene and quality assurance. The course was presented by SAMPRO's manager: training, Gerhard Venter.

Cheese-makers who attended the workshop were Dennis Bean, Nelis Beukes, Jean Rooi, Roscoe Taylor, Moses Mokacoba, Paul Francis, Wayne Kettledas and Abraham Madikoane. The workshop was presented at SAMPRO's offices in Faerie Glen, Pretoria.



Gerhard Venter (right) explains why it is important that brine is tested regularly

For more information on these and other courses and workshops, contact Gerhard at tel 012 991 4164 or e-mail gerhard@sampro.co.za [ME](#)