

Milk Essay

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Good progress with *National Disease Monitoring and Extension system*

Milk SA decided to engage in this project because of the huge contribution it can make to the well-being of the dairy industry of South Africa and as it is also in the interests of the country's consumers.



*Dr Danie Odendaal
of V-Net*

The need for an effective disease reporting and early warning system to increase biosecurity, was identified after the livestock industry suffered huge losses during the uncontrolled outbreak of Rift Valley Fever in 2010. The dairy industry was spared to a very large extent due to the disease not having spread to the main dairy producing areas of South Africa.

After this outbreak, a basic form of disease reporting was developed, but it is neither fast nor interactive enough to be effective in the event of such an outbreak occurring again and possibly spreading to the main dairy production areas.

Milk SA has appointed the Milk Producers' Organization (which is a member of

Milk SA) as project manager of the project, which in turn has subcontracted Veterinarian Network (V-Net) which will be responsible for the development and operation of the system. V-Net currently also provides a support system for private livestock veterinarians.

The initial development of the electronic system is now complete and ready for participation by raw milk producers and their herd veterinarians. Information is available to persons who register on the system, by visiting www.miksa.co.za.

In the first (testing) phase, milk producers and veterinarians will be required to report Lumpy Skin Disease only, following which the system will be fully implemented, to cover the list of diseases that

Milk SA signs contract with the MPO to finalize the “curriculum” project



From left to right are Nico Fouché and Nicolette Teichmann of Milk SA, and Dr Jan du Preez and Helene Pheiffer of the Institute for Dairy Technology

In 2013 the MPO's Institute for Dairy Technology (IDT) made good progress with the development of an occupational curriculum for the dairy farm worker, dairy farm foreman/supervisor and the dairy herd manager. Thanks to the new regulations, the contract between Milk South Africa and the Milk Producers' Organization could be extended to finalize this important project.

can impact on the well-being of the South African dairy industry.

The financial and production benefit of effective monitoring and control of a disease (like Lumpy Skin) could be especially significant if it leads to improved forward planning for the avail-

ability and distribution of the vaccine in the future.

Disease information as reported by milk producers and veterinarians through the system, will be used as selection criteria in order to supply practical disease prevention information to them.

“Formal” learning materials available

The following “formal” learning materials, which support the unit standards that make up registered learnerships, are available from SAMPRO. This initiative is part of Milk SA’s skills development programme, as administrated and managed by SAMPRO.

Formal learning materials category	Number of learner guides	Typical topics covered
Dairy Technology	9	Equipment and terminology; milk composition and changes due to processing; pasteurization; cream separation and standardization; homogenization
Food Safety	4	Cleaning and sanitizing; hygiene; pests and waste
Foundational (basic concepts of science)	6	Dairy microbiology; dairy chemistry; safety; energy; good manufacturing practices
Laboratory skills	29	Variety of chemical, physical; microbiological compositional analytical techniques;
Manufacturing technology	20	All major dairy product groups’ manufacturing technologies
Packaging	9	Operation and controlling of rigid plastic and glass containers; gable tops; bricks for aseptic packaging; sachets; individual food portions and cans
Quality management practices	4	HACCP; quality control and quality assurance
Sensory analysis	10	All major dairy product groups
Starter cultures	2	Bulk starter preparation and activity determination

Source: SAMPRO Training Newsletter 2/13

“Coaching manuals” available

In addition to the “formal” learning materials, there are 75 in-house “Coaching Manuals” contained in eight different programmes for use at a lower (operator/attendant) level. These manuals are abridged and rich in visual content.

In the education and training world these programmes are known as “Provider Programmes”. Programme 6 (*General Processing Requirements*) is unique in the sense that it does not present learning contents, but rather elaborate checklists for use by operators, attendants and supervisors regarding most (if not all) processes in a factory (designed for a fresh milk factory).

Non-formal coaching programme	Number of manuals	Intended training use
Good Manufacturing Practices	8	All operators/equipment attendants
Cleaning and Sanitising	7	All operators/equipment attendants
Raw Milk Reception	8	Milk Reception section operator
Milk Testing	6	Laboratory Assistants
Pasteurization system	4	Pasteurizer system operator
General Processing Requirements	4	System operators/attendants & shift leaders
Bulk Milk Collection	6	Tanker Operators
Manufacturing Assistance	(32 in total)	(‘Dairyman’ assistants)
Hard & semi-hard cheese making	10	Cheese Maker’s Assistants
Evaporation & Spray Drying	5	Powder Maker’s Assistants
Mixing & Blending	4	Mix & Blend Operator
Yoghurt Manufacturing	6	Yoghurt Maker’s Assistants
Cottage Cheese making	7	Cottage Cheese Maker’s Assistants

Source: SAMPRO Training Newsletter 2/13

For further information please contact the **Training Manager** of **SAMPRO**, **Gerhard Venter**, on **012 991 4164** or **gerhard@sampro.co.za**.

Financials in good standing



Milk SA Audit & Risk Committee members

Koos Pienaar, Willie Lubbe and Hendrik du Plessis, flanked by Wicus van der Merwe on the left (Milk SA's Internal Auditor) and Nico Fouché (CEO of Milk SA) on the right.

The Audit and Risk Committee, at its meeting of 27 February 2014, expressed its satisfaction with Milk SA's good financial standing, based on the preliminary annual financial statements as compiled by the company's independent accountants, PWC.

The sound financial situation can be ascribed to the Board of Directors' emphasis on good corporate governance including financial policies and procedures, legal action and inspections among role-players as conducted by Wicus van der Merwe, Milk SA's inspector who was appointed by the Minister.

Internal audits of Milk SA's administration department and projects are carried out each year by the Internal Auditor of Milk SA - to ensure compliance with contractual agreements.

Milk SA's dairy research programme on track

The Research Project Evaluation Committee (RPEC) - who advises the Board of Milk SA on R&D matters - recently reviewed its procedures and principles so that projects are in greater alignment with the vision of increased the competitiveness in the dairy industry.

Specialist work groups, including a producer R&D work group, informs the RPEC on demonstrated needs that should receive attention. Priorities which are currently receiving attention, are:

- The prevalence and treatment of liver fluke and other pasture related problems,
- Resistance to available antibiotics in lactating cows with mastitis,
- The prevalence of and reasons for milk flocculation after heat treatment in certain geographical areas, and
- The optimal combination of nitrogen-collecting crops on the same land for silage; the optimal planting of legumes together with small grains; the optimal use of wheat, triticale and oats as silage; and the control of weed in wheat lands.



Milk SA gives presentation

at DAFF's Bovine Tuberculosis and Brucellosis Workshop

On 5 February, Dr Danie Odendaal - on behalf of Milk South Africa - gave a presentation on TB and CA at a workshop to address these issues. The workshop - organized and hosted by DAFF - was attended by various other livestock industries.

Dr Odendaal emphasized the fact that milk producers had to comply legally with certain standards; and that the diseases impacted severely on milk yields per cow and also on the "commercialization" of emerging milk producers.

The lack of a co-ordinated approach he said, was one of the key reasons why the South African dairy industry had been denied access to the EU markets for the last ten years already.

He said the needs and priorities of the South African dairy industry could be summed up as follows:

- National coordination or control for the uniform and effective management and allocation of resources to combat these two state controlled diseases.
- The need for an updated and detailed distribution map up to the level of production units for both these disease in South Africa. This must be the result of effective surveillance, reporting and analysis on a monthly basis.
- On-going and targeted communication with the dairy industry and dairy farmers concerning challenges and progress made in the control of these two diseases.

South Africa's foot and mouth disease-free status reinstated



Director-General of the Department of Agriculture, Forestry and Fisheries, Edith Vries, on 18 February announced that South Africa's foot and mouth disease-free status had been reinstated.

The World Organisation for Animal Health (OIE) in Paris visited South Africa after the outbreak and laid down the steps the agriculture department would have to take to regain its foot and mouth disease-free status. The OIE wrote to Dr Michael Modisane, Chief Director: Department of Agriculture, Forestry and Fisheries to say it had considered the department's report on corrective measures that had been implemented. The OIE's scientific commission had concluded that South Africa now complied with the Terrestrial Animal Health Code.

The dairy industry is pleased to note that South Africa now again complies with the relevant IOE codes. Although the industry was not severely affected by the situation (heat treated products could still be exported during the ban), the image of the livestock industry sector suffered, especially as it raised questions regarding the effectiveness of the application of control measures.

We are thankful to Dr Michael Modisane and his personnel for his dedicated assistance in the process of having the ban successfully lifted. We all came through a very difficult time, and communication between livestock industries and DAFF has definitely improved.

After the ban was imposed in 2011, Milk South Africa and other livestock institutions revived the National Animal Health Forum with a view to promoting cooperation between the livestock industries and the State Veterinary Services; to promote acceptable national animal health standards and the application thereof, and to facilitate the establishment and management of a national animal health communication system.

Furthermore, Milk South Africa has recently commenced with its National Disease Monitoring and Extension System Project, which will continuously inform the dairy industry on the disease status in the country and it promises to make a major contribution to the health status of the industry.

CHANGES IN THE “NEW” REGULATIONS

There are a few aspects that need to be highlighted in the new regulations, which are quite different from the previous set of regulations. The new regulations have applied since 1 January 2014:

The new regulations contain changes in three respects:

- i An increase in the levy amounts.
- ii A levy on raw milk that is exported or moved outside the jurisdiction of the RSA.
- iii The levy is no longer applicable to raw milk that is bought with the purpose of selling it to others.

i. An increase in the levy amounts

The levy on raw milk has increased from 1,0 cents to 1,3 cents per kilogramme (excluding VAT).

Levies on other products that are imported into South Africa, have also increased by 20 per cent.

ii. A levy on raw milk that is exported or moved outside the jurisdiction of the RSA

A levy (of 1,3 cents / kg) is now also applicable to raw milk that is exported or moved outside the jurisdiction of the RSA.

iii. The levy is no longer applicable to raw milk that is bought with the purpose of selling it to others

The action of buying milk “with the purpose to sell it as such” is now excluded from the new regulations and therefore, raw milk that is bought with the purpose to sell it as such is now exempted from the levy.

We kindly appeal to traders of raw milk (such as producer groups) to:

- Apply for deregistration with Milk SA (an official form can be obtained from the office); and
- Supply Milk SA with the names of the companies to which they sell their milk, so that the levies can be recovered from the latter.

Copies of the regulations are available on the website at <http://www.milk.co.za/regulations>.

Successful round of “levy” inspections completed

The Marketing of Agricultural Products Act, 1996 (Act No. 47 of 1996) makes provision for the appointment by the Minister of Agriculture, of an inspector for the regulations that Milk SA administrates.

Wicus van der Merwe and Jones Ditsela were appointed by the Minister in 2013 to ensure that the role-players who are registered with Milk SA, comply with their responsibilities in terms of the regulations. Wicus is also Milk SA's internal auditor.

A “trial run” inspection, conducted by Wicus Van der Merwe at the end of last year in the Western and Eastern Cape Provinces, has proved the exercise to be worthwhile. We thank everyone for their co-operation thus far and wish to emphasize that the main purpose of the exercise is to assist the role-players in their statutory obligations, and not to “police” and prosecute.

The inspector reported that in general, the majority of the role-players comply with the statutory requirements, and also observed that there are a number of aspects that should be highlighted, namely:

Record-keeping

Regulation 1220 requires role-players to keep records of specific matters, as stipulated by the regulation, including the quantity of raw milk bought, processed and exported every month, as well as the use of raw milk for concentrated and other products.

Conversion factor

The standard conversion factor for milk of 1 litre = 1,031 kg, is applied. The levy on raw milk is paid per kilogramme.

Reporting of raw milk used for concentrated products and for other products

The statutory return form (field no. 5) requires that raw milk purchases should



From left to right: Inspectors appointed by the Minister, Wicus van der Merwe (also Milk SA's internal auditor) and Jones Ditsela, an attorney from Gildenhuis Malatji

be split into concentrated products and other products.

Concentrated products are, as shown on the form, the following: milk powder, cheese, butter and condensed milk.

It should be noted that in these two categories, the kilogrammes of milk that are used to manufacture concentrated products and other products respectively, should be reported.

Incorrect declarations of raw milk purchases

Under-declaration of raw milk purchases was found to be the problem, mostly due to a lack of records and other administrative reasons.

Appointed by the Minister as Administrator for the statutory regulations, Milk South Africa is compelled to make use of all measures at its disposal to ensure that the objectives of the regulations are optimally achieved.

The objectives of the regulations are:

- To communicate the health and nutritional advantages of dairy products to consumers.
- To promote compliance of dairy products with food safety, product composition and metrology standards.
- To empower previously disadvantaged individuals through training and skills development especially.
- To provide statistical and other information regarding the South African and international dairy industries to interested parties.
- To co-ordinate research projects and to ensure that research and development is functional in respect of the strategic direction of the dairy industry; and to promote the practical application of local and international research and development in South Africa.

South African milk production in global perspective

The International Farm Comparison Network (IFCN) is a network of dairy experts in many countries, including Dr Koos Coetzee of the MPO, who is also manager of Milk SA's Industry Information project. The IFCN mission is to create a better understanding of milk production worldwide.

IFCN estimates total milk production during 2012 at 739 million tonnes. Of this total, 33% is produced in Asia and 21% in the EU. Only 62% of total milk production reaches processors. While India is the world's largest milk producer, less than half the total milk production is processed.

South Africa delivers nearly 98% of total commercial milk production to processors. South Africa is one of the countries that delivers a high volume of milk per farm to processors. The average milk supplied per farm per year is shown in the table on the right.

The full report can be viewed at <http://www.milksa.co.za/reports/international-competitiveness-south-african-dairy-industry>.

Average milk to market per farm per year in 2012

Country	Milk to Market (ton/year)
Malaysia	86
Belarus	118
Chile	124
EU-27	137
Norway	147
Switzerland	161
Iceland	197
Uruguay	279
Jordan	286
Korea	307
Japan	341
Canada	633
South Africa	1083
Israel	1215
USA	1242
Australia	1245
New Zealand	1596

Source: "The international competitiveness of the South African dairy industry" February 2014

- By Dr Koos Coetzee.

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