



## **Co-ordination, Support and Promotion of Needs-driven R&D development in the SA dairy industry**

(PRJ-0059-2014)

**Milk South Africa**

**Quarter 1 2014** (January 2014 till March 2014)

### **Project goals**

**Goal 1 - To accumulate and publish existing domestic and international scientific knowledge of applicable and practical value to enhance the industry.**

**Achievements** *Tasks: i. Updating information on the website from the seven most relevant international scientific journals, as previously identified. Fifty research titles per month will be added. ii. The listing of publications and articles of a popular-scientific nature which would be of functional value to the South African dairy industry. iii. Research results of importance to the industry will be sourced from local and international sources and interpreted and popularized on the website monthly under the heading "The Research Column". One (1) article per month will be added to The Research Column. A nutshell interpretation will also be extracted from the afore-mentioned (Tasks i to iii), for publication in for example the Milk Essay and Milk SA's website. iv. The R & D capacities in SA, their publications and the work that they are busy with will be updated biannually on the website. This will be done in July before the Forum meetings. (This task will not be executed in 2014, as it was done in 2013).*

Task I. Updating information on the website - target 50 research titles per month.  
A total of 153 articles were sourced from January to March 2014. Target was met.

Task ii. Listing of publications of a functional value.  
Regular scans are done, but nothing was found other than what was reported in "The Research Column". Articles on the use of kikuyu for dairy cows were highlighted as "Research Snippets", but later altered (see Task iii).

Task iii. Results of importance interpreted in "The Research column", one per month.  
Three contributions were made, one per month from January to March 2014 - target met. In addition, two nutshell interpretations were also prepared, but later

### **Non-achievements / underperformance**

Nutshell interpretations of material of functional value were not published. It was communicated to the Program Manager R & D that such interpretations and series format of a particular subject such as kikuyu for dairy cows are inadequate and will not be read. This should rather be in the format of a lengthy article. However, opinions differ.

### **Reasons for non-achievements / underperformance**

Because of difference of opinion, the RPEC only decided towards the end of March 2014 how to deal with the issue.

### **Planned remedies for non-achievements / underperformance**

The RPEC decision was to leave it to the discretion of the Program Manager R & D, since the length of the interpretation will depend on the material sourced. This task should become functional in the second quarter.

## **Goal 2 - To limit research fragmentation and encourage cooperation between R & D capacities towards achieving the strategic goals of the industry.**

**Achievements** *Tasks: i. To communicate with R&D institutions in South Africa to promote R&D in line with the strategic direction of Milk SA and to promote appropriate interaction and co-operation between the relevant institutions. ii. Co-operative Research Networks (CRN's) and the development thereof will be encouraged to increase the chance of project funding and to ensure anticipated deliverables and outcomes - as well as to see how the transformation objectives can best be achieved in so far as R & D can support or add value. iii. The annual R & D Forum where the most prominent researchers and industry leaders will discuss strategic direction and relevant research results will be arranged in the second half of 2014.*

Task i: To communicate with R & D institutions and promote co-operation.

A MoA with the Western Cape Department of Agriculture (WCDA) has been negotiated and signed. A similar one has been completed with The Eastern Cape Department of Rural Affairs and Agrarian Research and is expected to be signed in May 2014. With regard to the KZN Department of Agriculture and Social Development (KZNDASD), initial discussions were conducted on 2014/04/01 and it was agreed that a MoA is the way forward. However, the format may be different as a MoA between the KZN MPO and the KZNDASD is already functioning. These departments are also in favour of working together and with relevant tertiary institutions under the guidance of the Program Manager R & D to better serve the interests of the south-eastern seaboard pasture-based dairy systems under the South-Eastern Seaboard Consortium for Research in Dairying (SESCORD) arrangement. To that effect a T.o.R. for SESCORD has been drawn up and signed. Amadlelo Agri and the University of Fort Hare are also participating and it is foreseen that individual farmers and study groups will also want to join the SESCORD initiative. What is important in the mentioned activities is that all institutions endorsed the goals and strategic direction of Milk SA. An outcome of the negotiations with the WCDA is the formation of a farmer advisory group for R & D in the region to feed in R & D requirements to the WCDA and Milk SA R & D structures. This will be encouraged in other regions as well. A further outcome is that the Program Manager R & D represents Milk SA and advises the WCDA's Research Forum, the first Meeting of 2014 being attended on 2014/02/13.

Task ii: The development of Co-operative Research Networks (CRN's) encouraged. The MoA and SESCORD arrangements discussed under Task i serve as examples of how CRN's are being promoted. For those researchers who submitted project

### ***Non-achievements / underperformance***

Task iii: The Forum Meeting will not be staged as progress on approved projects as yet cannot be reported and because the budget for the R & D Program had to be reduced as instructed by the Board.

### ***Reasons for non-achievements / underperformance***

See above

### ***Planned remedies for non-achievements / underperformance***

Staging of the R & D Forum will again be considered in 2015

proposals that are considered promising by the Research Project Evaluation Committee (RPEC), co-operation with other expertise and institutions are encouraged. The value of the approach is that the RPEC wants to ensure that the best possible expertise and capacities are involved with the project, secondly, that as many students as possible can be trained to build capacity and serve the interest of transformation and thirdly, that it will improve the chance of finding external funding if the amount which can be allocated by Milk SA is insufficient.

Task iii: The annual R & D Forum scheduled for August 2014  
The Forum will not be arranged

### **Goal 3 - To guide the R & D programme by means of effective structural arrangements, administration and fund sourcing.**

**Achievements** *Tasks: i. Chair the Research Project Evaluation Committee of Milk SA (RPEC). ii. The administration of R & D requires guidance on structural arrangements, evaluation of project proposals and reports, negotiations on IP, contracts and publication of results. iii. Submission of project proposals will be facilitated by the office of Milk SA; proposals will be evaluated by the RPEC and recommended by the RPEC to the Milk SA Board of Directors for approval and possible financial support. iv. R & D institutions will be guided through the required processes and contracts be concluded with successful applicants. v. Milk SA's funds for R&D are limited. Sourcing from other institutions is possible, but the process and procedures differ and therefore guidance to the researchers and Milk SA is required. This will be done for approved projects.*

Task i: Program Manager R & D chairs the RPEC

The RPEC has been very active in the reporting period, with Meetings on 2014/02/06 and 2014/03/31, which were preceded by Work Group Meetings. The Work Group serves as an Executive of the RPEC and deals in-depth with R & D structural and project relevant issues, the outcomes and recommendations of which are then relayed to the RPEC Meeting.

Task ii: Guidance to the administration of R & D.

This is done on a continuous basis. During the reporting period changes to the Project Proposal and Progress Report documents have been made. The change to the Proposal document will facilitate more effective evaluation by the RPEC.

Task iii: Submission and evaluation of project proposals

In the reporting period the first progress report of the "National Disease Monitoring and Extension" System" has been scrutinized and recommendations made. A new contract will be finalised in May for the remainder of the fin year. The project proposals: "R & D for application of genomics for SA Dairy breeds" and "Making an appreciable addition to the assurance processes of milk quality, security and consumer well-being in the South African dairy industry" were not recommended to the Board for funding, whereas the proposal: "The microbiological quality of milk with special reference to coliform types and Escherichia coli strains" was recommended, to the tune of R100000. In addition, four subjects have been identified by producers as being of importance, possibly requiring research, and submitted to the RPEC through the Producers Work Group:

- The prevalence and treatment of liver fluke on pasture
  - Resistance to available antibiotics in lactating cows with mastitis
  - The prevalence of and reasons for milk flocculation after heat treatment in certain geographical areas
  - The optimal combination of nitrogen-supplying crops on the same land for silage; the optimal combination of legumes with small grains such as wheat, triticale and oats, and as silage; and the control of weeds in these lands. [This subject is of importance to the Western Cape and Milk SA is only involved in kind or if expertise in the WCDA lacks].
- The Program Manager R & D was requested to consult with experts and the literature, to compile

an explanatory document for the Board and summarize the recommendations of the RPEC. On account of these, the Board approved in principle. Subsequently, the RPEC sent out Letters of Intent to prominent expertise and will request project proposals from those considered the most appropriate.

Task iv: R & D institutions will be guided through the required processes  
This is done when the need arises.

Task v: Sourcing of funds.  
This will be done once the need arises. Currently the two projects in the system (National Disease Monitoring and Microbiological Quality) are funded by Milk SA according to request.

### **No Non-achievements / underperformance has been reported**

**Goal 4 - To participate in the Water Research Commission's study on water and wastewater management in the South African dairy industry in which the Programme Manager acts as evaluator on behalf of the SA dairy industry; and to continue to support an MBA student with her dissertation titled "The quantificati**

**Achievements** *Tasks: i. Coach the MBA student in the approach to and execution of the dissertation. ii. To provide input as required by the Water Research Commission and its contractor, the University of KwaZulu-Natal.*

Task i: Coach MBA student  
Nothing required in reporting period.

Task ii: Provide input to WRC and UKZN  
Nothing required in reporting period

### **No Non-achievements / underperformance has been reported**

**Goal 5 - Reporting to and from the International Dairy Federation (IDF) on Sustainability and the Environment, including the activities of the Scientific Committee on the Environment (SCENV) and the South African dairy industry's commitments to the Global Dairy Agenda for Action (GDAA).**

**Achievements** *i. Provide South African water footprint data as obtained from the initiative under 3.4 and carbon footprint data obtained from the National R&D Programme on Climate Change to the IDF (in accordance with the IDF-LCA Methodology). ii. Promote mitigation activities in the South African dairy supply chain through communication and supporting articles (e.g. as under Task 3.1 iii). iii Report to and from the IDF on R & D and providing input into key documents on GHG emissions and environmental sustainability in the dairy supply chain (ad hoc). iv. IDF related information relating to R&D - including Sustainability and the Environment will constantly be scrutinized and taken care of as required.*

Task i: Provide SA water and carbon footprint data  
The most accurate SA data based on IPCC and IDF-LCA methodology has been published in a special edition of the SA Journal of Animal Science, available from February 2014. The title of the special edition is: "A balanced perspective on animal production, from environment to human health". The Program Manager R & D is author or co-author of seven papers, including four on methane emission calculations. A summary will now be provided to the IDF and the FAO. The FAO in their calculations includes South Africa in sub-Saharan Africa, which provides a skewed view of emissions and efficiency of livestock of the country. The RPEC recommended that the

Program Manager in consultation with other sectors of the livestock industry communicate with the FAO and provide the correct figures.

Task ii: Promote mitigation activities.

The special issue referred to under Task I serves as base document to that effect. In the paper: "Sustainability of the South African Livestock Sector towards 2050. Part 2: Challenges, changes and required implementations", the Program Manager R & D discusses several issues of mitigation. Sustainability, including water use and carbon emissions, was also dealt with in the February 2014 issue of THE RESEARCH COLUMN, as well as in 2013. This subject will be regularly addressed.

Tasks iii and iv: Reports to the IDF, GDAA and the IDF-FAO alliance.

Activities during the report period include: (1) The IDF-GDAA's initiative on the Dairy Sustainability Framework (DSF): The Program Manager R & D participated in a webinar on 2014/01/23 where the DSF brochure was explained and input requested. The DSF Management requested dairy institutions to consider membership which the Program Manager through the RPEC recommended. This was referred to SANCIDF for consideration. (2) The IDF's document on "Sustainable Dairy Nutrients are essential to human health (Version 2/2014)". The Program Manager R & D was requested to provide inputs/comments. (3) The IDF-FAO's High Level Panel of Experts of the Committee on World Food Security (CFS-HLPE) requested comments/inputs into their document on Water and Food Security, which was provided. (4) The IDF-FAO's Livestock Environmental Assessment and Performance Partnership (LEAP) requested inputs/comments on three documents: (a) Environmental Performance of Animal Feeds Supply Chains: Guidelines for quantification; (b) Poultry Guidelines; (c) Small Ruminant Guidelines.

***No Non-achievements / underperformance has been reported***

## Income and expenditure statement

Income and expenditure statement	No file has been uploaded
Unnecessary spending during period	No

## Popular Report

No file has been uploaded

## Additional documentation

[MSA THE RESEARCH COLUMN Feb 2014.docx](#)  
[MSA THE RESEARCH COLUMN Jan 2014.docx](#)  
[MSA THE RESEARCH COLUMN March 2014.docx](#)  
[MSA RESEARCH SNIPPETS FROM SA March 20 2014.docx](#)  
[MSA RESEARCH SNIPPETS FROM SA March 10, 2014.docx](#)  
[MSA KORNAV278 ToR SESCORD Final.docx](#)  
[SAJAS Meissner 1 99337-261701-1-PB.pdf](#)  
[SAJAS Meissner 2 99341-261706-1-PB.pdf](#)

## Statement

Levy funds were applied only for the purposes stated in the contract	Yes
Levy funds were applied in an appropriate and accountable manner	Yes

Sufficient management and internal control systems were in place to adequately control the project and accurately account for the project expenditure	Yes
The information provided in the report is correct	Yes