



Co-ordination, support and promotion of needs-driven research & development in the South African dairy industry.

(PRJ-0214-2018)

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Quarter 3 2018 (July 2018 till September 2018)

Project goals

Goal 1 - To promote R & D, limit research fragmentation and initiate cooperation between R&D capacities towards achieving the strategic direction of the industry

Achievements

As mentioned in the second quarter report, to align with the IDF's general theme of 'Sustainability' and to supplement the limited levy funds, a R & D programme was submitted to the Global Climate Fund (GCF) and presented to the SANBI, which is the SA Administrative Agency for the GCF. The Programme: CLIMATE AND ECO-RESILIENCE OF DAIRY PRODUCTION, concentrates on combating climate change, but also includes a broad perspective on the 'sustainability theme'. Since we in the mean time have learned that there were 125 applications, we were proactive and completed an application to the Southern African Science Services Centre for Climate Change and Adaptive Land (SASSCAL) Management Programme, which is a Dept of Science and Technology fund administered by the NRF. The theme overlaps with the programme submitted to the GCF, but also takes into account risk management: CLIMATE CHANGE: RISK AND SUSTAINABILITY MANAGEMENT IN DAIRY PRODUCTION. As with the GCF application, a number of institutions will participate, including the US, WCDA, KZNDARD, WWF-SA, Nelson Mandela University, Trace and Save, Grain SA and the Christian-Albrechts University in Germany, together with Milk SA.

The submitted programmes cover a substantial part of the Milk SA R & D outlook of 2018 to 2021, as schematically presented in Annexure 1 (attached).

No Non-achievements / underperformance has been reported

Goal 2 - To guide the R&D programme by means of effective structural arrangements, administration and fund sourcing

Achievements

The funds applied for in the GCF Programme [CLIMATE AND ECO-RESILIENCE OF DAIRY PRODUCTION], discussed under Goal 1 amount to \$1.05 million (about R15 million) per year for three years, and in the SASSCAL Programme [CLIMATE CHANGE: RISK AND SUSTAINABILITY MANAGEMENT IN DAIRY

Non-achievements / underperformance

The difficulty to retrieve unspent previous levy cycle funds from UKZN and the CSIR.

Reasons for non-

PRODUCTION] R2 million per year. This is in comparison to about R3.5 million from the levy allocation for 2019, which should give ample scope to do what needs to be done to service the goal of maintaining/improving competitiveness and sustainability. We hope that at least one of the applications will be successful.

The R & D Management Committee (MANCOM) usually meets officially about two weeks or more before the Dairy R & D Committee (DRDC) Meeting as it needs to inform and advise DRDC members. The author also meets regularly with the CEO of the MPO on administrative matters. The MANCOM met on 2/3 August 2018 and the DRDC on 21 August 2018. The recovery of unspent project funds from the previous levy cycle by research institutions is still a major issue, although most have responded. A decision taken was that Milk SA auditors will visit UKZN to discuss the discrepancy in calculations between their financial department and that of Milk SA/MPO. Although the issue has been resolved at other institutions apart from the CSIR, the delay at UKZN is a set back to project progress at this institution as requested funds for 2018 can still not be paid out by Milk SA until such time as the unspent funds are paid back. The project at the CSIR was terminated and the funds are expected soon.

Other administrative issues dealt with are delays in project reports and sometimes inadequate reports by researchers as delays make it difficult for the author to compile overview reports to the Board, changes to protocols of some projects to facilitate altered outcomes as reports suggest alterations to objectives, and planning for 2019 including the budget. To that effect the author submitted his programme proposal and altered R & D Outlook document during the reporting period.

Joint meetings between the Dairy Consumer Education Project, the Dairy Standards Agency and the R & D Programme to discuss issues of an umbrella nature are now well established. The Committee is known as the Dairy Industry Co-operation Committee. A Meeting was held on 14 August 2018. Two typical topics dealt with are claims on labels that the product is rBST free, whereas there is no reliable method available to distinguish between rBST and normal BST; and dairy milk products versus non-milk substitutes.

achievements / underperformance

See above

Planned remedies for non-achievements / underperformance

Official letters have been and will continue to be sent to the institutions and stronger actions anticipated if not solved. In addition, the Milk SA auditors will visit UKZN to meet with the financial department.

Goal 3 - To accumulate and publish existing domestic and international scientific knowledge of applicable and practical value to enhance the industry

Achievements

THE RESEARCH COLUMN: The target of scientific articles sourced from the international literature to be entered on the website is two per month, that is six for the quarter. The target was met. Some of the articles were also published in The Dairy Mail under the regular research column of the author. The topics covered as reflected in the titles of the papers are:

1. *Effect of pectin on the composition, microbiology, texture, and functionality of reduced-fat*

Cheddar cheese.

2. The cost-benefit of genomic testing of heifers and using sexed semen in pasture-based dairy herds.

3. Replacing human-edible feed ingredients with by-products increases net food production efficiency in dairy cows.

4. Bovine milk antioxidant properties: effect of in vitro digestion and identification of antioxidant compounds.

5. Pseudomonas fluorescens group bacterial strains are responsible for repeat and sporadic post-pasteurization contamination and reduced fluid milk shelf life.

6. Dietary supplement of conjugated linoleic acids or polyunsaturated fatty acids suppressed the mobilization of body fat reserves in dairy cows at early lactation through different pathways.

DAIRY R & D IN SA: The target of South African scientific articles sourced to be entered on the website is also two per month, i.e. six per quarter. The target was met. The following themes were covered:

1. HISTORY OF MINIMUM TILLAGE AND SOIL IMPROVEMENT IN KIKUYU-RYEGRASS PASTURES AND THE CONSEQUENCES OF POOR ADVICE.

2. DAIRY FARM GREENHOUSE GAS (GHG) EMISSIONS VERSUS THE GLOBAL BASELINE AND GHG TARGETS FOR THE SA INDUSTRY.

3. FORAGE HERBS IN GRASS MIXTURES FOR DAIRY PRODUCTION.

4. A NEW NITROGEN FERTILISATION REGIME FOR MINIMUM-TILLAGE KIKUYU-RYEGRASS PASTURE IN THE SOUTHERN CAPE.

5. ANTIBIOTIC RESISTANCE OF MASTITIS CAUSING ORGANISMS.

6. SEASONAL TRENDS OF MASTITIS INCIDENCE IN DAIRY PRODUCTION REGIONS.

No Non-achievements / underperformance has been reported

Goal 4 - To advise and assist with national and international managerial, strategic and position publications on any matters which may support the strategic direction of the industry. Advice may also imply representing the industry on government and non-government bodies, but not the IDF which is administered by SANCIDF

Achievements

To re-establish capacity in Helminthology and ecto-parasites at the Onderstepoort Veterinary Faculty as initiated by the author, with specific emphasis on parasite resistance and R & D to deal with it, has been the topic of discussion in several reports by the author since 2016. A Post-Doctoral student, Dr Charles Byaruhanga, was appointed to initiate research, train Masters and PhD students and co-ordinate other research in this regard. It was envisaged that this initiative could expand to a centre of excellence and maybe later a Chair. However, because of several reasons and a need to expand the initiative to also embrace training, extension, farmer participation and involvement of the livestock commodities, it was decided to utilize the clout of the National Animal Health Forum towards the DAFF and utilize the Ruminant Veterinary Association of SA as the administrative body. At this stage it is envisaged that the initiative will be driven by a Steering Committee, with one of its members being Dr Byaruhanga to have R & D high on the agenda, an Advisory Committee to support the Steering Committee and work groups to deal with specific needs. The preliminary motivation and T.o.R. is provided in Annexure 2 (attached). The title of the programme henceforth will be Sustainable Integrated Parasite Management (SIPM) in SA.

The author commented on the Draft Carbon Tax Bill. See Annexure 3 (attached)

The author commented on allegations of animal abuse and environmental burden in a SABC documentary: 'The Kindness Project'. See Annexure 4 (attached).

No Non-achievements / underperformance has been reported

Income and expenditure statement

Income and expenditure statement	MSA Meissner_PRJ-0214_Q3 Report_Expenditure_2018.docx
Unnecessary spending during period	No

Popular Report

[MSA Meissner_PRJ-0214_Q3 Report_2018_Popular Report.docx](#)

Additional documentation

[MSA Sustainable Dairy Production schematic ANNEXURE 1.docx](#)
[Sustainable integrated Parasite Control_ATT00023 - Annexure 2.docx](#)
[TEMPLATE FOR COMMENTS ON NAT LEGISLATION \(ANNEXURE 3\).docx](#)
[SABC KINDNESS PROJECT-Heinz Meissner - Annexure 4.docx](#)

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