



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

(PRJ-0214-2018)

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Quarter 2 2018 (April 2018 till June 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

To align with the IDF's general theme of 'Sustainability' and to supplement the limited levy funds, a proposed R & D programme was put together in the first quarter of 2018 to be presented on the 23rd of April 2018 to the SANBI, which is the SA Agency for the international Green Climate Fund (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. The entire dairy production system, including both pasture-based and TMR systems has been included. In terms of the goal to limit fragmentation and promote cooperation between R & D capacities, the programme is comprehensive. It will include expertise and capacities at the University of Stellenbosch; Christian-Albrechts-University, Kiel, Germany; the Western Cape Department of Agriculture; Nelson Mandela University; Trace & Save (Woodlands Dairy); Agreplan; WWF Mondi Water Stewardship Partnership and WWF-SA Sustainable Agriculture; GroundTruth KZN; FARMSYSTEM Hinck & Kielhorn, Osnabrück, Germany; University of Pretoria; Dung Beetle Innovations, Auckland, New Zealand; University of the Free State; Grain SA and the KZN Department of Agriculture and Rural Development.

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 the R & D Programme CLIMATE AND ECO-RESILIENCE OF DAIRY PRODUCTION, discussed under Goal 1 amount to \$3.15 million (about R42 million), compared to the R2.8 million from the levy allocation, which clearly gives ample scope to do what needs to be done to service the goal of maintaining/improving competitiveness and sustainability. If the submission is not successful, we will pursue other

Non-achievements / underperformance

The difficulty to retrieve unspent funds from the Universities.

Reasons for non-achievements / underperformance

possibilities.

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 12 April 2018 and the DRDC on 15 May 2018. The major issue addressed at these Meetings and later (22 May) also together with the Milk SA Exco was the difficulties to recover unspent project funds from the University Financial Departments. This problem was a set back to project progress as requested funds for 2018 could not be paid out by Milk SA until such time as the unspent funds were paid back.

The Dairy Research Forum (DRF) also met on 12 April. The DRF consists of R & D experts, industry members and members of the DRDC (in an observing capacity). The major objective is to discuss possible R & D projects and problems encountered in the field which require attention. At the particular Meeting, the author also explained the essence of the SANBI submitted project and discussed the dynamic R & D Outlook 2018-2021 document of envisaged R & D.

A comparative new development is a joint Meeting between the Dairy Consumer Education Project, the Dairy Standards Agency and the R & D Programme to discuss issues of an umbrella nature. This development certainly adds value to the goals. A Meeting was held on 16 May 2018.

See above

Planned remedies for non-achievements / underperformance

The arrangements with the Universities of the Free State and Pretoria are satisfactory and their respective projects can continue with 2018 allocated funds. The situation with the UKZN has as yet not been solved, but is addressed urgently.

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. Differential effects of a single dose of oral calcium based on postpartum plasma calcium concentration in Holstein cows.*
- 2. Impact of cows' milk estrogen on cancer risk.*
- 3. Milk progesterone on day 5 following insemination in the dairy cow: associated metabolic variables and reproductive consequences.*
- 4. Interrelations between the rumen microbiota and production, behavioral, rumen fermentation, metabolic, and immunological attributes of dairy cows.*
- 5. Bifidobacterium bifidum YIT 10347 fermented milk exerts beneficial effects on gastrointestinal discomfort and symptoms in healthy adults: A double-blind, randomized, placebo-controlled study.*
- 6. Factors associated with profitability in pasture-based systems of milk production*

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:

A. THRESHOLDS OF SCC IN COMPOSITE AND QUARTER SAMPLES TO INDICATE

UDDER INFECTION.

B. ARE EXISTING 'CLEANING IN PLACE' PROCEDURES ALWAYS EFFECTIVE?

C. INVENTORY OF DAIRY R & D IN SA IN THE PERIOD 2015 – 2017.

D. ENTREPRENEURIAL SKILLS OF EMERGING SMALLHOLDER DAIRY FARMERS.

E. WHAT DO CONSUMERS SAY AND KNOW ABOUT DAIRY PRODUCTS?

F. MEDICINAL PLANTS TO CONTROL MASTITIS PATHOGENS.

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 again establish capacity in Helminthology at the Onderstepoort Veterinary Faculty, with specific emphasis on parasite resistance and R & D to deal with it, has been discussed in 2016 and 2017 reports by the author. A Post-Doctoral student, Dr Charles Byaruhanga, has been appointed to initiate research, train Masters and PhD students and co-ordinate work done at Onderstepoort and elsewhere in the country. To assist Dr Byaruhanga and establish priorities in alternative treatment and holistic prevention methodologies, a workshop was held on 11 May at the Faculty with the author as convener. The Minutes of the workshop are available from the author. In addition he gave two radio talks and prepared a press release which was published in the Landbouweekblad, Farmers Weekly and Veeplaas. The press release is attached as Annexure 1.

The initiative at Onderstepoort is important because the problem of drug resistance is important to the larger livestock industry, but in particular also the Dairy Industry as we experience drug resistance with liver fluke and have R & D projects to address that.

No Non-achievements / underperformance has been reported

Income and expenditure statement

Income and expenditure statement	MSA Meissner PRJ-0214_Q2 Report Expenditure 2018.docx
Unnecessary spending during period	No

Popular Report

[MSA Meissner PRJ-0214_Q2 Report 2018_Popular Report.docx](#)

Additional documentation

[MSA Meissner PRJ-0214_Q2 Report 2018 Annexure 1_Press release Alternative approaches to parasite control.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