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

(PRJ-0214-2018)

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Quarter 4 2018 (October 2018 till December 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 before, to align with the IDF's general theme of 'Sustainability' and to supplement the limited levy funds, an 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. A number of institutions will participate, thereby supporting cooperation between R & D capacities. These include Stellenbosch University, WCDA, KZNDARD, WWF-SA, Nelson Mandela University, Trace and Save, Grain SA and the Christian-Albrechts University in Germany, together with Milk SA. It was indicated by the SANBI that the outcome should be available by the end of January 2019. Since, however, it is expected that there will be many applications, we were proactive and also completed an application to the Southern African Science Services Centre for Climate Change and Adaptive Land (SASSCAL) Management Programme, which is a Department 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. We have in the mean time received notice that our SASSCAL application was not successful, the ironic reason being that the 'application was worth funding, but there are not sufficient funds to do so'.

With reference to our Genetic and Performance Improvement R & D programme, we on the 28th of November 2018 submitted a proposal to the Research and Technology Fund (RTF) of DAFF. The fund is also administered by the NRF. The title of the proposal is: A GENOMIC APPROACH FOR IMPROVEMENT OF WELFARE TRAITS IN DAIRY CATTLE. Prof Este van Marle-Köster of the University of Pretoria (UP-main campus) will take responsibility, also for the administration and budget, and the author will be co-responsible. The intended project will focus on functional traits not well recorded to date. They relate to mastitis (udder health), claw health and lameness, and feed efficiency and will be studied using a genomic approach to provide insight into genetic mechanisms, with the end goal of providing practical solutions for genetic selection and improvement of cow welfare. Again, as with the proposals above, a number of institutions will be involved, including UP-main campus, UP-Onderstepoort, The ARC-API, Stellenbosch University and the University of Fort Hare.

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 R14.5 million) per year for three years, and in the RTF Programme [A GENOMIC APPROACH FOR IMPROVEMENT OF WELFARE TRAITS IN DAIRY CATTLE] R570 000 for 2019. 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 October 2018 and the DRDC on 6 November 2018. The author also provided input and reported at the Dairy Industry Coordinating Committee on 28 November and the Milk SA General Meeting on 29 November 2018.

It was decided at the DRDC Meeting of 6 November that the number of Meetings will be reduced in 2019. Apart from savings, the need for the number of Meetings was deemed unnecessary as the MANCOM and the regular Meetings of the author with Dr van Dijk can deal with most issues. Thus, the DRDC Meetings were reduced from four to two and the DRF Meetings from two to one as from 2019. The MANCOM Meetings will remain four per year.

The recovery of unspent project funds from the previous levy cycle by research institutions, as discussed in the third quarter report, has been resolved, which implies that the research can now continue and the required funds allocated. 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. In addition, Dr van Dijk proposed a method which will facilitate judgement of progress against goal dates and spent funds against budget. The method will be implemented in 2019.

No Non-achievements / underperformance has been reported

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:
Genetic evaluation of susceptibility to, and recoverability from, mastitis in dairy cows.
Interaction between feed use efficiency and level of dietary crude protein on enteric methane emission and apparent nitrogen use efficiency with Norwegian Red dairy cows.
Influence of milk protein concentrates with modified calcium content on enteral dairy beverage formulations: Physicochemical properties
Methane production, rumen fermentation, and diet digestibility of Holstein and Jersey dairy cows being divergent in residual feed intake and fed at 2 forage-to-concentrate ratios.
Effect of lactation stage and milking frequency on milk yield from udder quarters of cows.
Is rumination time an indicator of methane production in dairy cows?

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:
MANAGEMENT PROTOCOL OF MASTITIS ON SA DAIRY FARMS.
WATER NEEDS OF PASTURES USED IN DAIRY PRODUCTION.
CONSOLIDATED 2018 THIRD QUARTER RESEARCH PROGRESS REPORT.
PREVALENCE OF MASTITIS ORGANISMS IN PASTURE-BASED AND TMR SYSTEMS.
BENEFITS OF CLA ADDITION TO YOGURT.
E.COLI AND OTHER ENTEROBACTERIACEAE IN BULK MILK.

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. 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 (NAHF) towards the DAFF and utilize the Ruminant Veterinary Association of SA (RuVASA) as the administrative body. It is envisaged that the initiative will be driven by a Steering Committee, an Advisory Body to support the Steering Committee and if need be, work groups to deal with specific needs. Prof Gareth Bath will act as Interim Chair to kick start the process. The proposal was presented to the NAHF Meeting of 22 November by Prof Bath and the author, where it was approved and accepted as one of the programmes of the NAHF. For easy reference the programme will be called SIMPL [Sustainable Integrated Management of Parasites of Livestock (in SA)].

To support and communicate the strategic direction of the industry and provide input to government and other initiatives which are associated/aligned with the projects of the dairy Industry, the following may be mentioned:

* The author attended the DMC Conference at Sandringham on 10 October and interact with attendees.

* With regard to the liaison with the WCDA, the author attended the Outeniqua Information Day on 17 October and the WCARF Meeting of 15 November.

* The author, because of his knowledge about climate change and sustainability, was invited to the GCRP-AfriCap workshop of the Department of Land Affairs and Rural Development (DLARD)on 12 November, and the Climate Change Workshop of the DAFF on 28 November. The author was concerned by the ideas, e.g. AgriParks by the DLARD which cannot work, and the lack of progress with regard to a climate risk plan by the DAFF which should have been in place three years ago.

* Together with Prof James Blignaut of Asset Research, Dr Hendrik Smith of Grain SA and Dr Pieter Prinsloo, Chair of Agri SA's Commodity Chamber, the author is pursuing the possibility of allocating a monetary value to conservation farming and soil health. Through interaction with environmental attorneys, bank financial authorities and economists the possibility seems promising.

No Non-achievements / underperformance has been reported

Income and expenditure statement

Income and expenditure statement	MSA Meissner_PRJ-0214_Q4 Report_Expenditure_2018.docx
Unnecessary spending during period	No

Popular Report

MSA Meissner_PRJ-0214_Q4 Report_2018_Popular Report.docx

Additional documentation

No file has been uploaded

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