



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

**(PRJ-0271-2020)**

**Heinz Meissner**

**Quarter 2 2020** (April 2020 till June 2020)

**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 first quarter report a presentation was made to the TIA for possible funding and they were interested to fund those projects with a tangible outcome. Following further telephonic discussions during lockdown in April 2020, they were willing to consider a R5 million contribution to the Milk SA R & D Programme if Milk SA also allocate the same amount. The TIA officials undertook to take the proposals to their principals but were optimistic that their proposal will be supported. The expected date to receive the funds and sign the agreement if approved will be in the second half of 2020. It is however not sure how the lockdown will affect finalisation time lines.

In terms of co-operation with other R & D capacities, an agreement was signed with SA STUD BOOK to do analyses on software programmes of automatic milking systems to enable more information to be retrieved and especially to facilitate time trends, and in association with Dr Muller of the US, to develop efficiency parameters which can be incorporated. It is expected that this initiative will culminate into a dashboard and APP development to the benefit of farmers. However, the expected projects have been delayed as reservations were discussed at the DRDC Meeting of 11 May of whether we should proceed with the projects. The proposed projects will therefore be discussed again and hopefully finalized at the August Meeting of the DRDC.

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

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

***Achievements***

The budget for the R & D Programme with support from the TIA as discussed under Goal 1 will be R10 million for 2021 if the agreement realizes as anticipated. The allocated budget to the Milk SA Programme for 2020 is R3.65 million, but with funds carried over from 2019 and expected non-delivery on projects due to the lockdown, the R & D Programme should have sufficient funds

to meet the R5 million obligation to match the R5 million of the TIA. The TIA officials indicated that they will honour the R5 million agreement in years 2021 and 2022 as well, but since the 4-year statutory levy cycle ends at the end of 2021, the actual fund allocation will be discussed again after the new levy allocation is received.

A MANCOM Meeting was held on 15 April. The resolutions of the meeting were incorporated in the Agenda of the DRDC Meeting of 11 May. The most important items of the DRDC Meeting include the information on the TIA application as discussed above, the document written by the author and Dr Colin Ohlhoff with the title: 'Approach and Progress to Ensure Sustainability in the SA Dairy Industry', the implications of a progress report by the Dairy Industry to the Dairy Declaration of Rotterdam (DDoR), the SA Stud Book and Dr Muller's projects mentioned under Goal 1, suggested priorities for further work on the Milk Flocculation programme and queries by industry members on the SABS' SANS 1694 Animal Welfare Guidelines for Dairy Cattle.

The title of the sustainability document which is intended to be endorsed by all in the Dairy Industry has been changed to 'Sustainability in the Dairy Industry: A Status and Progress Report' and finalised. It is attached as Annexure 1. Following the signing of the DDoR by board members in 2016, the intention (which was not realized at the time) was that countries should report on their progress on the sustainable goals set in the DDoR. We are not in a position to do so, but the document provided in Annexure 1 can fulfil that purpose. The further report on the DDoR issue will be taken up in the SANCIDF Report. Priorities for further research in the Milk Flocculation programme are shown in Annexure 2. With regard to the queries on some guidelines in the SABS' SANS 1694 document the DRDC has appointed a workgroup (Drs. Meissner and Van Dijk and Messrs. Kraamwinkel and Burger) to investigate these and to make recommendations on how to handle these guidelines.

## ***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:

- 1. Gene mapping and genomic prediction of bull fertility using sex chromosome markers.*
- 2. Phenotypic characterization and genome-wide association studies of digital cushion thickness in Holstein cows.*
- 3. Analysis of closed versus operating dairies in the south-eastern United States.*
- 4. Spores in dairy – new insights in detection, enumeration and risk assessment.*
- 5. Effect of Salting Technique on Shreddability, Texture Profile and Microstructure of the Pre-Acidified Cow's Mozzarella Cheese.*
- 6. Increased take-off level in automatic milking systems – effects on milk flow, milk yield and milking efficiency at the quarter level.*

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) POSITIVE CARBON BALANCE RESULTS REPORTED BY TRACE AND SAVE.**
- b) KEY PERFORMANCE INDICATORS FOR JERSEY COWS ON TMR.**
- c) THE POSSIBLE DILEMMA OF FEEDING CONCENTRATES ON PASTURE.**
- d) CAN PRE-WEANED CALVES BE FED ONCE A DAY INSTEAD OF TWICE A DAY?**

- e) PRIORITY RESEARCH STILL TO BE DONE ON MILK FLOCCULATION IN SA.
- f) CARBON EMISSIONS AND SEQUESTRATION ON DAIRY FARMS IN SA.

***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**

### ***Achievements***

As discussed under Goal 2, the author and Dr Colin Ohlhoff have compiled a document intended to provide a record of and guidance to the Dairy Industry with respect to sustainability. The title is: **Sustainability in the SA dairy Industry: A Status and Progress Report**. It contains sections on greenhouse gas mitigation, soil health, responsible water use, waste management, biodiversity, market development, rural economies, working conditions, product quality and safety, and animal care. The contents of the document are flexible and will be altered regularly as new information becomes available. It is attached as Annexure 1.

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

**Goal 5 - To support the dairy sector with R & D and advice on matters affecting sustainability. These include: Environmental – greenhouse gas reduction, carbon sequestration & storage, water and pasture fertilization efficiencies, waste and effluent reduction and treatment, and ecosystem and biodiversity protection; Animal welfare – the internationally acknowledged five freedoms (freedom from: a. thirst, hunger & malnutrition; b. discomfort; c. pain, injury & disease; d. to express normal behaviour, and e. fear & distress) are the point of departure.**

### ***Achievements***

The document mentioned under Goals 2 and 4 applies here as well.

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

## **Income and expenditure statement**

Income and expenditure statement	<a href="#">MSA Meissner_PRJ-0242_Q2 Report_2020_Expenditure.docx</a>
Unnecessary spending during period	No

## **Popular Report**

[MSA Meissner\\_PRJ-0242\\_Q2 Report\\_2020\\_Popular Report.docx](#)

## **Additional documentation**

## 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