



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

**(PRJ-0368-2024)**

***Dr Heinz Meissner***

***Quarter 3 2024/2024*** (July 2024 till September 2024)

**Project goals**

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

***Achievements***

The Technology Innovation Agency (TIA) is in the process of finalizing the application and the indication is that the funds will become available during the fourth quarter of 2024. Co-funding by the TIA should increase the available budget for R & D in the next three years by about R3-4 million per year (see Attachment 1).

Regarding collaboration with other scientific capacities, as referred to in the second quarter report, an informal agreement through FABI, had been signed between Milk SA and Beef and Lamb NZ to share information as well as a confidentiality agreement on what each party was doing. The FABI-NZ project pays attention to characterization of the sporidesmin fungus *Pseudopithomyces chartarum* causing facial eczema in the Eastern Cape. The work, as indeed the other sporidesmin projects, has however been delayed due to the outbreak of FMD in the affected area. With effective control measures which were put in place though, it is expected that these projects should continue again when the new fungus season commences in the spring of 2024.

The R & D projects planned for the next three-year cycle, commencing in 2025, with significant implications towards environmental sustainability, animal health and welfare, and the strategic direction of the industry are summarized in Attachment 2. What became crucial is that FMD work had also to be included in the programme, as the disease is globally rather uncommon in dairy farming, and thus an urgent project has been included in the programme with the title: DIAGNOSTIC OPTIONS FOR SURVEILLANCE FOR FOOT AND MOUTH DISEASE.

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

**Goal 2 - To guide the R&D program by means of effective structural and R**

## **& D Committee arrangements, initiating and promoting research initiatives, research project construction and evaluation, and fund sourcing**

### ***Achievements***

The R & D programme as it played out between 2023 and 2024 with regard to project leaders, budgets, objectives and status has been summarized by the author in Attachment 3. This provides an effective overview of what the programme currently entails.

With regard to general administration, a MANCOM Meeting was held on 29 July and a DRDC Meeting on 23 August 2024. The Project Manager also participates in the Coordinating Committee under Mr Kraamwinkel as Chair, but outcomes of those Meetings are reported elsewhere.

Prominent items dealt with at the MANCOM and DRDC Meetings include: (1) The document titled "Proposal to the Milk SA Project: Research and Development regarding the establishment of a dairy livestock research centre/ laboratory in the Eastern Cape" was discussed. The envisaged laboratory in the Eastern Cape would not be a duplication of the current laboratory but would be able to provide more services than the current laboratory. The establishment of the envisaged laboratory will relate to government and government driven laboratories by being subject to the authority of the national government in terms of competence, whilst the execution of competence evaluations would be by the provincial government veterinarians. (2) Dr Chimes as Chairperson of the Brucellosis Steering Committee of the NAHF will strive to standardize testing in the dairy industry across provinces and encourage the beef industry to vaccinate, possibly by developing an incentive scheme. (3) The devastating effect of heat stress on production, fertility, unborn calf and immunity was discussed, but at this stage the intention of an envisaged project is to look at cow performance variation against climatic variation. It could be that in the practice of culling cows on the basis of production, reproduction, inter calving periods etc., the effect of heat stress as a reason for the culling has probably not been considered. Consequently, selection of heat stress tolerant cows may have already and unintentionally taken place resulting in a more resilient herd. (4) Dr Ohlhoff referred to the current notion by organisations with high carbon emissions, to buy carbon credits from the dairy sector to offset against their emissions. The author suggested that Dr Ohlhoff should raise this matter at the upcoming World Dairy Summit. (5) The author referred the meeting to the recently promulgated Environmental Act which requires different sectors to set targets for their gas emissions. The DEFF, as the administrator of the Act, placed the responsibility to determine the rate of decreasing the carbon footprint (CFP) on the respective responsible government departments. They requested these departments to determine a baseline for 2025 so that by 2030 it can be calculated how the CFP had declined. We will monitor developments. (6) A chronologic record of developments in the FMD saga was compiled and forwarded by the CEO to the Milk SA Board (see Attachment 4). (7) There was concern that the AAMP does not emphasize animal health and welfare enough as being the primary factor affecting sustainability of the livestock industries. Thus, a document was compiled and will be submitted to the AAMP members as well as the NAHF (see Attachment 5).

### ***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 and DAIRY R & D IN SA: The target of respectively scientific articles sourced from the international literature and SA scientific articles to be entered on the website is two per month, i.e. six for the quarter. The target was met. Some of the articles may be

published in the Dairy Mail under the regular Research Column of the Project Manager and others in the Milk Essay.

The July to September 2024 list for THE RESEARCH COLUMN is:

Effects of different temperature-humidity indexes on milk traits of Holstein cows: A 10-year retrospective study.

Genome-wide association study of age at puberty and its (co)variances with fertility and stature in growing and lactating Holstein-Friesian dairy cattle.

Effects of simplified group housing on behavior, welfare, growth performance, and health of preweaned dairy calves on a California dairy.

Association between days post-conception and lactation persistency in dairy cattle.

Pasture feeding improves the nutritional, textural, and techno-functional characteristics of butter.

Effects of feeding whole-cracked rapeseeds, nitrate, and 3-nitrooxypropanol on composition and functional properties of the milk fat fraction from Danish Holstein cows.

The July to September 2024 list for DAIRY R & D IN SA is:

EFFECT OF FEED ENERGY LEVELS ON METABOLISM AND OVARIAN FUNCTION.

ESSENTIAL MICROBIAL GROUPS TO BE MONITORED IN MILK FOOD SAFETY.

PLANTAIN CAN SAVE CONCENTRATE SUPPLEMENT COSTS FOR GRAZING DAIRY COWS.

RELATIONSHIP BETWEEN NUMBER OF DAYS IN MILK IN FIRST LACTATION COWS AND THEIR LIFETIME MILK YIELD.

HEAT STRESS IN COWS – EFFECTS AND CONSEQUENCES

SELECTION FOR FERTILITY AND MILK PRODUCTION – HOW TO SELECT.

The topic of bullet 2 provide results of a project which Milk SA funded.

An article was also prepared for the Milk Essay, titled: “Recent results pertinent to structured breeding programmes of dairy farmers”.

***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**

### ***Achievements***

The sustainability document: "Sustainability in the SA Dairy Industry: A Status and Progress Report" provides strategic and position guidance to the Board and officials. The decision was that updates will be done in April and October, and the document will, apart from internal distribution, also be sent to the DSF to evaluate progress of the SA Dairy Industry on international sustainability goals

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

**Goal 5 - To support the dairy industry with R & D and advice on matters affecting sustainability, such as environmental – GHG reduction, carbon sequestration, water use efficiency, waste treatment, ecosystem and biodiversity protection – and animal welfare. To that effect, also oversee the Animal Health and Welfare and Environment programmes**

### ***Achievements***

The sustainability document mentioned under Goal 4 is compiled in line with the UN's 2030 Development Goals with much emphasis on GHG reduction, water use, waste reduction, ecosystem and biodiversity protection, and animal care. The sustainability document when updated shows the progress made in R & D and supporting issues which are of relevance to this goal. The October 2024 issue is being compiled.

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

## **Income and expenditure statement**

Income and expenditure statement	<a href="#">MSA Meissner_PRJ-0368_Q3 Report_2024_Expenditure.docx</a>
Unnecessary spending during period	No

## **Popular Report**

[MSA Meissner\\_PRJ-0368\\_Q3 Report\\_2024\\_Popular Report.docx](#)

## **Additional documentation**

[ATTACHMENT 1 TIA application\\_Project budgets per year for 2025, 2026 and 2027- Sept 2024.docx](#)  
[ATTACHMENT 2 R & D 2025 Planning.docx](#)  
[ATTACHMENT 3 R & D Projects and Supporting Programmes - status October 2024.docx](#)  
[ATTACHMENT 4 Notes to the CEO of Milk SA for purposes of informing the Board of Directors on activities and progress regarding curbing the FMD outbreak in the Eastern Cape.docx](#)  
[ATTACHMENT 5 AN ANIMAL HEALTH ENABLING ENVIRONMENT.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