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

(PRJ-0094-2016)

Dr Heinz H. Meissner

Quarter 3 2016/2016 (July 2016 till September 2016)

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

In the R & D Project on Milk Flocculation co-operation between the researchers responsible for respectively the milk enzymatic component (Dr Koos Myburgh) and the psygrotrophic component (Prof Celia Hugo) was established. This should enhance the outcomes. A more recent development is that the biofilm problem may contribute to the prevalence of milk flocculation. The Programme Manager is discussing this with role players in the industry and expertise and if found necessary, relevant expertise will be added to the Milk Flocculation Project.

In the Project to analyse automatic system data of farmers, it was negotiated with institutions such as Dairy MC and a feed company to assist with extracting data and logistics. This has enhanced the initiative considerably.

The co-operation between UP and UKZN on the mastitis projects is satisfactory.

Brucellosis has been put in the number one spot to address by the DAFF, Animal Health Forum and RUVASA. To that effect a driving committee has been formed to strategize and propose implementation actions. It was decided to link up with this initiative and therefore the MSA project with the CSIR on point-of-care diagnosis is one of the actions that will be taken on board by the Committee.

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 last Meeting of the RPEC was held on 19 July and the first Meeting of the new dispensation, called the Dairy Research and Development Committee (DRDC), was held on 1 September 2016. The new structure for R & D as approved by the Milk SA Board is attached as Annexure 1. Terms of References were written for the different functionaries supporting decision making and recommendation in the structure: the Dairy Research Forum (DRF), the Management Committee and the DRDC. To give effect to the Board decision that the MPO will take over the administration, arrangements are being discussed between the MPO CEO and the Programme

Manager. It is expected that the administration will soon be in place.

An anticipated R & D needs document and budget was compiled by the Programme Manager for the the levy cycle 2018 to 2021. This is attached as Annexure 2. The proposal is of course dynamic and may change considerably during the course of the period. However, it does provide guidance for effective planning, discussions and negotiations.

The last SESCORD Meeting was held at the Wilderness on 8 July, to coincide with the Annual Congress of the Grassland Society. SESCORD was disbandoned to make way for the DRF that will not only cater for the needs of the pasture systems, but also for the needs of the TMR systems. In retrospect, the SESCORD was successful as it brought together the relevant expertise and farmers, stimulated co-operation between research institutions and primary projects were initiated in the discussions.

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

1. 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. Eight articles were entered on the website; therefore the target was met. Some of these 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:

1.1. *Role of bacterial endotoxins in the etiopathogenesis of periparturient diseases of transition dairy cows.*

1.2. Effect of maternal heat stress in late gestation on blood hormones and metabolites of newborn calves.

1.3. Cow- and farm-level risk factors for lameness on dairy farms with automated milking systems.

1.4. Comparing technical efficiency of farms with an automatic milking system and a conventional milking system, and Estimating efficiency in automatic milking systems.

1.5. Bacterial counts on teat skin and in new sand, recycled sand, and recycled manure solids used as bedding in freestalls.

1.6. Effects of Somatic Cell Count on Quality and Shelf-Life of Pasteurized Fluid Milk and Effects of Somatic Cell Count and Milk Composition on Cheese Composition and Cheese Making Efficiency.

1.7. Draining and salting as responsible key steps in the generation of the acid-forming potential of cheese: Application to a soft blue-veined cheese.

1.8. In vitro evaluation of a novel bacteriophage cocktail as a preventative for bovine coliform mastitis.

2. 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. Six articles were sourced which met the target. The following themes were covered:

2.1. Reduction of product loss in dairy foods manufacturing.

2.2. Bacteriophages as measure to control Staph. aureus mastitis.

2.3. History of pasture cultivation for dairy production in the southern Cape and alarming signs of soil fertility status.

2.4. Integrated control of liver fluke in dairy cattle.

2.5. Impact of liver fluke on dairy production and sustainable management.

2.6. Importance of dedicated R & D for the dairy sector.

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

As mentioned in the 2nd quarter report, the DEA developed in draft format their "Strategic Plan:Measurement, Reporting and Verification for the AFOLU Sector 2016 to 2020" (AFOLU is the acronym for Agriculture, Forestry and other Land Use), which addresses targets and time lines for mitigation for the Sector, as well as measures such as taxation if the targets and time lines are not met. The author expressed his concern about the intended taxation on the Agricultural Sector where profit margins are small and agriculture needs to feed the increasing population, and accordingly prepared a Memorandum for discussion at the AgBiz Meeting of 21 July 2016. The Meeting shared the concern and decided to put a team together consisting of members representing the Grain Crops, Horticulture and Livestock sectors to negotiate with the DEA (and when applicable Treasury) for tax exemption or benefits. The Programme Manager will be convener. It is envisaged that a position paper will be drawn up before the end of the year to illustrate agriculture's commitment to reduce its carbon footprint, which could be presented to the DEA when discussions/negotiations commenced early next year.

No Non-achievements / underperformance has been reported

Income and expenditure statement

Income and expenditure statement	MSA PRJ-0094 3rd Quarter Report_Expenditure of Programme Manager R & D 2016 3rd Quarter.docx
Unnecessary spending during period	No

Popular Report

No file has been uploaded

Additional documentation

MSA PRJ-0094 3rd Quarter Report_R & D Functional Structure_Annexure 1.doc
MSA PRJ-0094 3rd Quarter Report_R & D Outlook 2018 to 2021_Annexure 2.docx
MSA PRJ-0094 3rd Quarter R & D Outlook 2018-2021_Annexure 2.1_Budget.xlsx

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