



# Improvement of the quality of milk and other dairy products

(PRJ-0281-2021)

## Dairy Standard Agency

**Quarter 2 2021/2021** (April 2021 till June 2021)

### Project goals

#### Goal 1 - National monitoring of milk and other products in collaboration with Health Authorities

##### Achievements

*Operational activities due to the Covid-19 restraints continued to affect the DSA project activities and more specifically the National Dairy monitoring program in collaboration with Health Authorities.*

*Challenges such as the limited availability of Environmental Health Practitioners to conduct sample collections due to Covid-19 responsibilities (overseeing funerals, tracing of people exposed to virus) and reallocation of resources continued. DSA personnel where possible managed to assist with sampling in various provinces.*

*The quarterly sample run for cycle 76 was completed as per schedule and the amount of samples per product are indicated in Table 1 below.*

**Table 1**

Milk and other dairy products	Total
Total: Fresh milk in the categories named packed pasteurised and unpasteurised, pasteurised and unpasteurised retail bulk milk	225
Milk (Packed pasteurised)	130
Milk (Packed Unpasteurised)	5
Milk (Bulk Pasteurised)	29
Milk (Bulk Unpasteurised)	61
Total: Other Dairy Products	179
Cream	82
Cultured Cream	21
Butter	46
Cultured Butter	9
Modified Butter	17
Modified Cultured Butter	3
Yoghurt with Added Sugar	1
<b>Total</b>	<b>404</b>

**6 Metropolitan municipalities, 12 district municipalities and 37 local municipalities participated in the sampling runs representing all provinces.**

**Samples were submitted to DSA Laboratory Services per standard procedure and the results of milk and other dairy products were benchmarked against food safety, compositional and trade metrology standards as respectively gazetted under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972), Agricultural Product Standards Act, 1990 (Act 119 of 1990) and the Legal Metrology Act, 2014, (Act 9 of 2014).**

Food safety non-conforming results obtained were assessed and communicated to the participating municipal health authorities for further action. Contact details of participating authorities as well as processors were updated as per standard procedure.

**DSA in terms of its project protocol and relationships with the relevant authorities (see project goal 6) continued to liaise with the relevant law enforcement bodies, providing support through dairy technical information and guideline documents to limit the sale of non-conforming products.**

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

### **Goal 2 - Investigations regarding complaints received in respect of product compliance with legal standards**

#### **Achievements**

4 Complaints were received and investigated by the DSA office.

- Labelling and composition of butter imported from Ukraine
- Labelling of plant based "butter" fat spread
- Flocculation of fresh pasteurised milk
- Labelling of medium fat milk sold in WC

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

### **Goal 3 - Special investigations**

#### **Achievements**

Aflatoxin M1- the project was commissioned in the second quarter and will continue until end 2021.

- Psychrotrophs in milk - the project was commissioned during the second quarter and will continue until end 2021. Assistance was also rendered by DSA in the Milk SA R&D project relating to the development of a rapid test method for detection of psychrotrophic organisms in raw milk registered by the University of the Free State.

- Addition of milk powder to various types of milk (Pasteurised, ESL, UHT and sterilised milk) – Identifying differential modifications between UHT milk and UHT milk adulterated with milk powder has been the main challenge with the use of non-quantitative methods tried to date. As before, chemical changes are induced, but these are detectable as changes in the mass of the protein (and constituent peptide chains). In particular, the sugar lactose is known to modify the

amino acid lysine in a process known as lactosylation during the spray-drying process.

The laboratory assisting with the research is building on prior work using high sensitivity instrumentation to identify these low-abundance protein modifications to build a targeted and quantitative method for detecting the level of powdered milk to both fresh and UHT milk.

Target markers have been identified and verification is currently underway to confirm specificity across a wide range of commercial UHT and powdered milk samples. The benefits of this targeted protein-based method include comparatively low cost and high confidence results. The research is still in process.

- Investigation into the establishment of a suitable analytical method for the enumeration of Bifidobacteria in fermented milk products. This work is new and development will continue to end 2021.

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

### **Goal 4 - Milk and other dairy product risk identification**

#### ***Achievements***

The DSA national dairy monitoring program provides for the sampling of milk categories namely packed pasteurised and unpasteurised milk and retail bulk pasteurised and unpasteurised milk as well as other dairy products.

#### **Reporting**

Participating municipalities received quarterly reports on the analyses done of samples submitted. Non-conforming processors as well as processors whose contact details were verified and who requested to receive test results were provided with individual test reports.

Reports on non-conforming results were forwarded to the respective government departments at the end of the cycle. Each participating municipality received a quarterly report on the analysis done of samples submitted. Non-conforming processors as well as processors whose contact details were verified and who requested to receive test results were provided with individual test reports. 100 Quarterly reports forwarded to Health Authorities are indicated in Table 2.

Table 2

<b>Province</b>	<b>Health Authority Offices</b>
MP	13
LP	16
WC	16
NW	18
GA	14
FS	17
NC	1
EC	5
KZN	9

#### **Food Safety Alerts**

National and international food safety alerts during the second quarter were monitored. 19 National and international websites were monitored on a weekly basis for possible food safety risks relating to dairy, that may have a public health impact on South African consumers. An average of 50 international alerts per week are currently monitored. No further actions were required based on the monitoring activities.

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

## Goal 5 - Remedial action programmes with producers/processors and processors/distributors (PD's)

### ***Achievements***

Due to the limited shelf life of most dairy products, the follow-up of non-conforming products as to ensure appropriate action by the parties involved, requires prompt action. The activities of projects 1 and 5 provide for an opportunity whereby information regarding non-conforming test results as well as recommendations for corrective actions is effectively communicated to the industry members with whose product/s reflect non-compliance. EHP's were also requested to communicate all test results to relevant parties. In total 30 facilities were visited for the period 1 April 2021 – 30 June 2021.

Table 3

Province	Companies visited	E-mails	DSA further assistance provided
Gauteng	8	62	13
Mpumalanga	6	15	1
Free State	0	10	9
North West	0	15	3
Northern Cape	0	2	0
Western Cape	0	16	2
Eastern Cape	0	4	0
Limpopo	5	15	5
KwaZulu Natal	11	12	0

As part of the remedial action program, assistance was given to processors on the verification of compliance of product labels against national standards. 20 Company's dairy product labels were reviewed and comprehensive feedback reports on each label were communicated to processors. The labelling website was also updated with the newest applicable regulations to ensure that it is integrated into the program.

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

## Goal 6 - Communication with authorities and other organizations

### ***Achievements***

Communication with authorities and other organisations

#### a. Department of Health: Directorate Food Control

As a continuous activity, DSA in a supportive role assisted the industry members with queries relating to food labelling, food safety and food additive requirements as well as dairy technical matters. Technical matters such as the incorrect issue of certificates of acceptability in terms of health regulations in particular received attention.

#### b. Municipal Health Authorities

Communication with the municipal health authorities mainly focused on interpretation of food safety legislation and elements of law enforcement as per the health regulations under the Foodstuffs, Cosmetics and Disinfectants Act with specific reference to retail unpasteurised and pasteurised bulk milk, certificates of acceptability. In support of Project 1, a letter was forwarded to SALGA (South African Local Government Authorities) encouraging the continuous participation in the DSA National Dairy Monitoring Programme.

c. Department of Agriculture, Land Reform and Rural Development (DALRRD)

i) Directorate: Inspection Services (IS)

Cycle results of the DSA monitoring programmes regarding infringements in terms of the Regulations relating to dairy and imitation dairy products, as a result of the DSA mandate were restricted to communication with the Directorate Food Safety and Quality Control in light of the dysfunctional status of the assignee and judgement by the High Court in the case between Woodlands Dairy and Milk SA and the DALRRD respondents.

ii) Directorate Food Safety and Quality Assurance – FSQA (policy making)

Communication with FSQA regarding dairy product compositional matters and the interpretation of the Regulations relating to dairy and imitation dairy products continued. Formal communication with DALRRD: FSQA also continued regarding possible revisions of the latest R1510 of 2019 Regulations relating to dairy and imitation dairy.

d. National Regulator for Compulsory Specifications (NRCS): Legal Metrology

Standard procedure provides for a quarterly report regarding metrology infringements to the Senior Manager, Inspections: Legal Metrology NRCS. No formal complaints were lodged with NRCS in the second quarter.

e. South African Bureau of Standards (SABS)

Virtual work group technical committee of TC034/SC05 was chaired by the MD of DSA.

### **Communication with other organisations**

#### **Milk SA, MPO and SAMPRO**

DSA interacted on a regular basis with the project managers of the Milk SA Consumer Education Project and SAMPRO, MPO as well as the Project Coordinating Committee of the Milk SA (DSA, CEP and R&D Project of Milk SA) of which a scheduled meeting took place in the second quarter. DSA MD has been nominated to the DRDC project of Milk SA and subsequently participated in the meetings of the DRDC and DRF.

CGCSA: FSI – DSA as member of the Food Safety Initiative (FSI) interacted on a regular basis with the management of FSI regarding matters relating to regulations under the Foodstuffs, Cosmetics and Disinfectants Act and in particular the latest developments regarding the Front of Pack Labelling. Several meetings were held during which comments were forwarded in collaboration with the Milk SA Consumer Education Project.

IDF – DSA Managing Director is a member of SANCIDF and of the IDF Standing Committee: Standards of Identity and Labelling and nominated to the IDF Standing Committee for food additives. Electronic webinars of the IDF and midyear meetings of the IDF SCIL and SCNH were attended.

SASDT - DSA Managing Director as member of the management committee of the Northern region participated in the SASDT management meetings.

TERTIARY INSTITUTIONS – DSA serves as a member of the Advisory Boards of the Departments of Environmental Health of the Tshwane University of Technology (TUT) as well as Nelson Mandela Metropolitan University. The purpose of the advisory boards is to give industry inputs and assist the universities with the development of course material for Environmental Health Practitioners. No meetings were held during the second quarter.

The European Hygienic Engineering & Design Group (EHEDG) – DSA serves as a member of the SA steering committee. The first meeting in April could not be attended.

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

### **Goal 7 - Liaison on legislation with authorities and other organizations**

#### ***Achievements***

DSA continued liaison with the authorities regarding the following legislation and standards:

#### **2. Department of Health: Directorate Food Control**

**Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972)**

Regulations relating to milk and dairy products R1555/1997 – Milk SA approval of funding for appointment of consultant was finalised, and the first phase of the project was completed end March 2021;

Rendering of comments to DOH in preparation of the South African contribution towards the Codex Committee on Food Additives meetings (CCFA 52) in June and September 2021.

## **2. DALRRD**

### **Agricultural Product Standards Act, 1990 (Act 119 of 1990)**

Regulations relating to the classification, packing and marking of dairy products and imitation dairy products intended for sale in RSA (R1510/2019). The first report was circulated to the working group which was followed up with a meeting in June 2021 for the purpose of revision of R1510/2019. Workgroup comments were collated with the assistance of DALRRD: FSQA.

## **3. South African National Standards – SABS**

The MD of DSA serves as chair person of the SABS TC 34/SC 05 regarding Milk and Milk Products. The first meeting for TC34/SC05 was held on 19 May 2021. As chair person of the TC34/SC05 DSA Managing Director has been appointed on behalf of the SABS and industry on the African Organisation for Standardisation ARSO/TC 04, Milk and milk products. The first ARSO meeting on 22 June 2021 was attended.

## **4. Codex Alimentarius, ISO and IDF**

As representative of the SANCIDF DSA MD participated in the IDF survey regarding the General Standards for the Use of Dairy Terms in May 2021. Both the IDF SC Identity and Labelling as well as the joint SCIL and SCNH meetings were attended on 25 and 26 May 2021. IDF comments on Front of Pack Nutritional Labelling were followed and used as part of the information forwarded to the SA Codex contact point for the purpose of discussion at the next SA preparation meeting of the CCFA52.

## **5. DSA Technical Committee**

The extensive work in terms of preparation of the industry meeting on imitation dairy and the use of dairy terms on plant-based beverages and products (R1510/2019) that took place in June 2021 continued. This work also supports the project work of the Regulations and Standards Project of Milk SA.

Assistance for the development of the DRDC research project regarding the development of a rapid test method for the early detection of psychrotrophic bacteria at farm level were rendered.

Technical inputs were provided in support of the Milk SA Regulations and Standards project relating the revision of R1555 of 1007.

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

## **Goal 8 - Information and Education**

### ***Achievements***

DSA presents information sessions based on the DSA Code of Practice and related guideline materials to professional EHP's as well as student EHP's, and other professions such as veterinary and B.Sc. Agric students. EHP presentations for student EHP's were scheduled with the respective tertiary institutions. The project operations have been amended so as to engage with the institutions more through electronic communication, where possible. To this effect, the scope of the audiences are also widened to cover other interested parties as well. The following successful webinars took place:

April 2021 – Brucellosis and tuberculosis: The importance of zoonosis in dairy - 60 attendees

May 2021 – Mastitis and the quality of your milk: What to do – 83 attendees

June 2021 – Introduction into pasteurisation – 98 attendees

A successful workshop was held in the Sara Baartman District Municipality on 8 April with 17

municipal environmental health practitioners followed by a physical visit at a milk production farm in the Alexandria area.

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

#### **Goal 9 - Media communication**

##### ***Achievements***

Four advertorials/advertisements relating to food safety/hygiene and DSA Lab Services were published in the Dairy Mail and Plaas Media magazines and one TV broadcast regarding the DSA Lab Services was conducted in May 2021.

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

#### **Goal 10 - Development of guideline documentation**

##### ***Achievements***

Work on the update of the DSA Code of Practice for Milk Producers with specific reference to biosecurity as well as animal welfare following the publication of the latest SANS 1694, the Welfare of dairy cattle continued during the second quarter. Validation of the DSA audit criteria based on SANS 1694 is to take place in 2021 with the registration of a Milk SA project and assistance of the Milk SA R&D project.

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

## **Income and expenditure statement**

Income and expenditure statement	<a href="#">PRJ-0281.pdf</a>
Unnecessary spending during period	No

## **Popular Report**

[Popular DSA Quarterly report April to June 2021.pdf](#)

## **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