Milk SA - Dairy Standard Agency Programme, 2024

(PRJ-0366-2024)

Dairy Standard Agency

Quarter 4 2024 (October 2024 till December 2024)

Project goals

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

Achievements

The sample run activities (cycle 90) were completed as per schedule and the number of samples per product is indicated in Table 1 below. The product scope for cycle 90 was milk (raw and pasteurised), and flavoured, sterilised, UHT and condensed milk, dairy powder and dairy desserts

Table 1 **Number of samples per product collected**

Fresh Milk (A-D)	**148**
Products total (E - K)	**162**
Milk (Packed Pasteurised)	70
Milk Packed Unpasteurised	3
Milk Bulk Pasteurised	26
Milk Bulk Unpasteurised	49
UHT Milk	59
Sterilised Milk	0
Flavoured Milk	35
Sweetened Condensed Milk	16
Evaporated Milk	6
Dairy powder	7
Dairy Dessert	39
Other	0
Total # of samples	**310**

During Cycle 90, samples were collected from a total of 60 municipal offices. The collected samples were submitted to the DSA Laboratory Services, adhering to the established standard procedures. The test results for milk and flavoured, sterilised, UHT and condensed milk, dairy powder and dairy were benchmarked against legal standards in the areas of food safety, compositional analysis, and trade metrology. These benchmarks were based on the following legislation:
Foodstuffs, Cosmetics, and Disinfectants Act of 1972 (Act 54 of 1972)
Agricultural Product Standards Act of 1990 (Act 119 of 1990)
Legal Metrology Act of 2014 (Act 9 of 2014)

Non-conforming results related to food safety were reviewed and communicated to the participating municipal health authorities for necessary follow-up actions. Additionally, the contact details of the participating authorities and processors were updated according to standard procedures.

In line with project protocols and existing relationships with relevant authorities (as outlined in Project 6), the DSA continued its collaboration with law enforcement agencies. The DSA provided support through the dissemination of dairy technical information and guideline documents, aimed at curbing the sale of non-conforming products. Work relationship agreement, planning, project information as well as applicable documentation and records to be submitted during sample runs for 2025 were revised and forwarded to all participating health authorities.

No Non-achievements / underperformance has been reported

Goal 2 - Handling of quality problems in respect of product compliance with legal standards

Achievements

Under Project 2, the following matters were addressed:

a. Composition of product and label complaint – Investigation completed. Product composition comply but label was non-compliant. Remedial action was initiated through written communication.
b. Quality and food safety risk – UHT milk sold in the Limpopo province – product was tested, and no non-conformance was reported.
c. Label complaint – Use of the term “Greek” – Label evaluation was completed. Evaluation report was communicated to processor for remedial action to be taken. A follow-up will be conducted.
d. Composition of Kefir products and labelling thereof – Investigation in process.

No Non-achievements / underperformance has been reported

Goal 3 - Special investigations

Achievements

3.1 Report: Investigation into chlorates and perchlorates in milk and dairy products

3.1.1 **Background and objective**

An investigation was initiated to assess the potential risk of chlorates and perchlorates in milk and dairy products in South Africa. The primary objective of the study was to evaluate this risk by sampling retail milk, with samples selected based on estimated market share. The total sample population was limited to 60 samples.

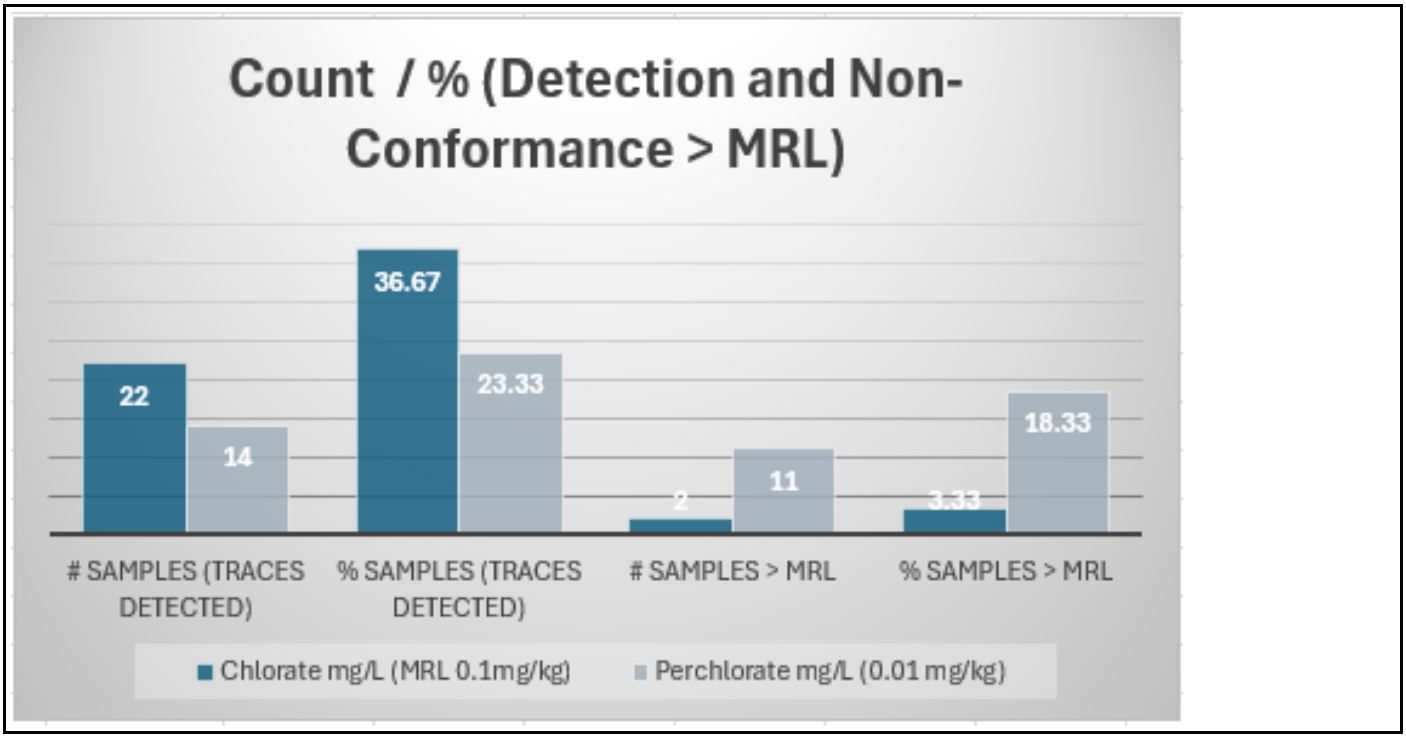
3.1.2 Sampling process

First sampling period:
A total of 30 samples were collected by the Dairy Standard Agency (DSA) between July and September 2024, following standard protocols. These samples were geographically representative of all 9 provinces. The collected samples were submitted for analysis using ultra-performance liquid chromatography coupled with tandem mass spectrometry (UPLC-MS/MS) at an FDA-accredited laboratory.

Second sampling period:
The remaining 30 samples was collected and analysed during Cycle 90 (October to December 2024).

Finding:
In this study, chlorates were detected in 36.67% of the 60 samples tested, with 3.33% exceeding the maximum residue limit (MRL) of 0.1 mg/kg. Perchlorates were detected in 23.33% of samples, of which

18.33% exceeded the 0.01 mg/kg MRL. These findings suggest the need for a root cause analysis to better understand the primary sources of contamination.



Conclusion

The presence of chlorates in dairy products is often linked to the use of chlorine-based detergents for cleaning milk contact surfaces on farms or in processing plants, as well as the chlorination of processing water (McCarthy et al., 2018). Chlorine disinfection of wash water, particularly when used in combination with chlorine-based detergents, should also be considered as a potential contributor to the presence of chlorate and related derivatives in dairy products.

A recurring issue identified in farm-level good agricultural practices (GAP) audits conducted by the Dairy Standard Agency (DSA) in South Africa, is the lack of routine verification testing when water treatment is applied. This is reflected in the frequent non-conformances reported during these audits.

At the manufacturing level, the root cause of chlorine derivative contamination varies. It is recommended that the dairy industry first focus on identifying common factors that may contribute to this risk. Once these causes are understood, relevant pre-requisite programs (PRPs) should be integrated into food safety management systems to manage and reduce the risk of chlorine-based contaminants in dairy products effectively.

Additionally, it is advised that each processing plant conduct internal investigations to pinpoint specific sources of contamination, as these are likely to vary from plant to plant.

No Non-achievements / underperformance has been reported

Goal 4 - Milk and other dairy product risk identification

Achievements

During Cycle 90, the DSA's national dairy monitoring program continued to facilitate the sampling of various milk categories, including:
Packed pasteurised and unpasteurised milk
Retail bulk pasteurised and unpasteurised milk
All available categories of long shelf-life products

This sampling was conducted in collaboration with municipal health authorities. Upon completion of testing, the results, along with interpretations related to food safety and compositional standards, were promptly communicated to relevant government authorities and industry stakeholders. Comprehensive

analyses of the results highlighted non-conformances, underperformance, and associated risks. Lists of critical non-compliance results were compiled and disseminated to each province for further action.

4.1 Reporting of results to health authorities

Reports on non-conforming results were forwarded to the respective government departments at the end of each cycle. Each participating municipality received a quarterly report on the analysis of all 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.

4.2 Labelling evaluation

Ten label evaluation requests were received, evaluated and reported on.

Tabel 2: Label Queries – 1 October 2024 to 31 December 2024

Number	Query	Feedback sent	Report generated
1	Nutritional table: Cholesterol	02.10.2024	WhatsApp
2 ✓	Label evaluation: 300 g Feta	04.10.2024	
3 ✓	Label evaluation: 5 kg Full Cream Maas	08.10.2024	
4 ✓	Label evaluation: 1 kg Double Cream Strawberry Yoghurt	05.11.2024	
5	Double Cream Strawberry Yoghurt 1 kg	07.11.2024	WhatsApp
6	Fruit inclusion rate	14.11.2024	WhatsApp
7	Updated: Fruit inclusion rate	14.11.2024	WhatsApp
8	Preservatives	14.11.2024	WhatsApp
9	Nutritional table	14.11.2024	WhatsApp
10 ✓	Label evaluation: Complaint	03.12.2024	

4.3 Software development

Recent developments and ongoing projects in the realm of information technology and software development within the Dairy Standard Agency (DSA):

a. Upgrades to the current Management Information System (MIS):

The current focus is on utilizing the captured data and actionable extracts for data analysis from the MIS. The first phase of creating extractions was completed. A forward-looking approach is being adopted to ensure the MIS stays technologically up-to-date and continues to meet the evolving needs of our organisation.

b. Updates to the laboratory program:

The development of a new version of our DSA laboratory data capturing system has been completed, and the program has been successfully deployed.

c. Upgrades to the DSA audit application:

The data source for the DSA audit application was successfully deployed on the new platform. A new beta phase for testing will be loaded early in January 2025.

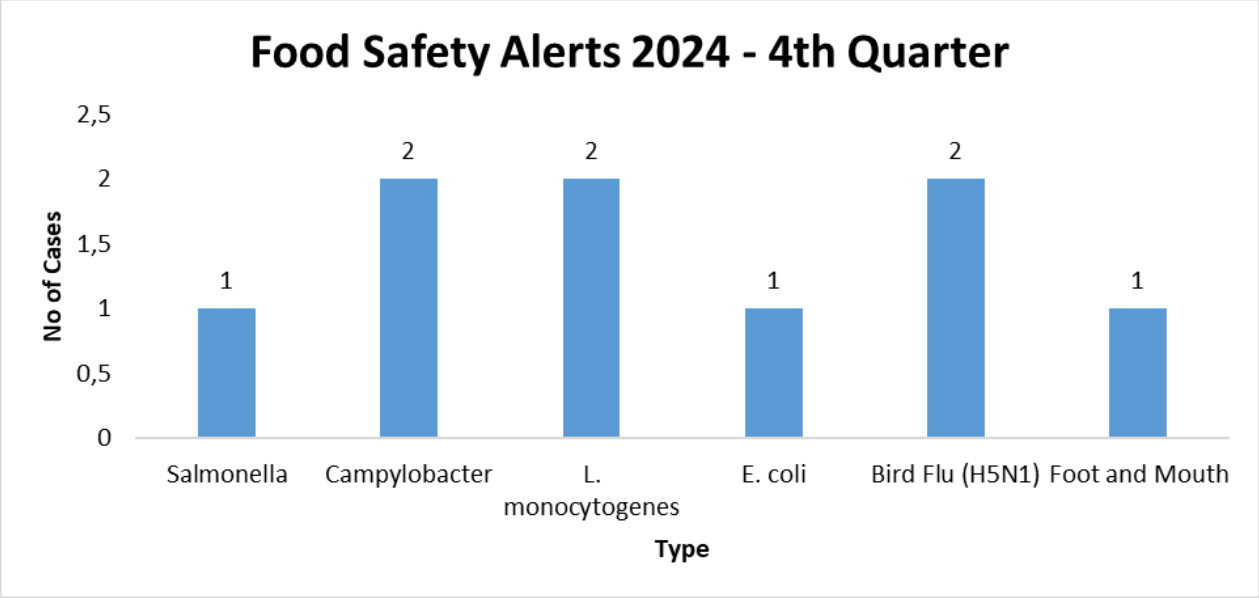
Ongoing initiatives in IT and software development underscore the DSA's commitment to continuously improve its technological infrastructure and systems. These upgrades and developments are essential for maintaining efficiency, data accuracy, and compliance across various aspects of the operations. The DSA will continue to monitor and report on the progress of these projects in future updates.

4.4 National and international food safety and recall monitoring

Twenty national and international websites were monitored on a weekly basis for possible food safety risks relating to dairy during this year, that could have a public health impact on South African consumers. Three national and sixteen international food safety-related alerts were reported on. No further actions were required based on the scope of products involved.

Tabel 3: Food safety alerts – 1 October 2024 to 31 December 2024

	FOOD SAFETY ALERTS - 2024 - FOURTH QUARTER					
Total # of Reported Cases	**Salmonella**	**Campylobacter**	**L. monocytogenes**	**E. coli**	**Bird Flu (H5N1)**	**Foot and Mouth**
8	1	2	2	1	2	1



No Non-achievements / underperformance has been reported

Goal 5 - Remedial programs with producers, processors and distributors

Achievements

5.1 Supplier overview

Suppliers of dairy products intended for human consumption include a range of entities such as:
Producer distributors (farmers selling dairy products directly to consumers)
Producer distributor processors (farmers adding value to dairy products and selling to consumers)
Milk shops (retail outlets selling dairy products)
Milk shop & processors (retail outlets adding value to dairy products and selling to consumers)
Processing facilities (facilities adding value to dairy products and distributing through retail channels)
Distributors (facilities responsible for distributing value-added dairy products)

5.2 Project 1.5: Implementation

Building on the activities of Project 1.1, Project 1.5 provides a structured approach for effectively communicating test results to suppliers. Results are shared via email or WhatsApp reports, ensuring timely and transparent communication. Additionally, environmental health practitioners (EHPs) are requested to communicate all test results to the relevant parties, further supporting the dissemination of critical information.

5.3 Supplier visits

Visits to suppliers are conducted based on their compliance status. The objective of a visit is to recommend corrective actions and maintain relationships and ensure continued compliance.

5.4 Cycle 90 visits

During Cycle 90, a total of 61 visits were conducted across various provinces:
Gauteng: 1 visit
Limpopo: 11 visits
KwaZulu-Natal: 20 visits
Free State: 28 visits

5.4 Collaboration with environmental health practitioners (EHPs)

In addition to supplier visits, DSA technical personnel worked closely with EHPs from the respective government departments. These engagements were aimed at providing support and guidance in the execution of Project 1.5, ensuring consistent enforcement of food safety standards and compliance across the dairy supply chain.

Table 4 Visits were paid to processors, PD's and milk shops

Province	Areas visited	Companies visited	E-mails	DSA further assistance provided
Gauteng	1	1	50	7
Mpumalanga	0	0	10	0
Free State	16	28	15	4
North West	0	0	14	1
Northern Cape	0	0	0	0
Western Cape	0	0	57	1
Eastern Cape	1	1	22	4
Limpopo	9	11	7	1
KwaZulu Natal	12	20	13	0

No Non-achievements / underperformance has been reported

Goal 6 - Communication with the authorities and other organisations

Achievements

6.1 Department of Health: Directorate Food Control

The DSA in a supportive role to industry, liaised with the directorate regarding queries relating to food labelling, food safety and food additive requirements, as well as dairy technical matters such as the amendment of standards relating to amongst others the draft R3337 of 21 April 2024 as well as Codex standards.

6.2 Municipal Health Authorities

Communication with the municipal health authorities focussing on the interpretation of food safety legislation under the Foodstuffs, Cosmetics and Disinfectants Act, with specific reference to hygienic processing, packing and retail of milk as well the sale of raw milk and cheese took place continued. The above actions were a result of an action plan to make law enforcement officers aware of the dangers of non-compliant product in the retail. These engagements were followed up by means of webinars and radio talks about the health risks of substandard dairy products as per Project 8.

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

i) Directorate: Inspection Services (IS)

Communication of Cycle results of the DSA monitoring programs regarding infringements in terms of the regulations relating to dairy and imitation dairy products were limited to the Directorate: Inspection Services. Appropriate actions are still under investigation to improve the system of law enforcement in an effective and appropriate manner.

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

Formal communication with the FSQA continued regarding the revision of R1510 of 2019 - Regulations relating to dairy and imitation dairy products. Further consultations were dealt with under the Regulation and Standards Project of Milk SA. No date has been provided towards completion of the work by FSQA.

6.4 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 of NRCS. No formal complaints were lodged with NRCS during the fourth quarter of 2024.

6.5 South African Bureau of Standards (SABS)

Correspondence from the SABS in respect of South African National Standards as well as information from the International Standards Organisation (ISO) were appropriately dealt with and ballot papers on standards were attended to. Further consultations were dealt with under the Regulation and Standards Project of Milk SA.

6.6 Communication with other organisations

6.6.1 Milk SA, MPO and SAMPRO

The DSA interacted on a regular basis with the project managers of Milk SA's Consumer Education Project, SAMPRO, as well as the Project Coordinating Committee of Milk SA. The following meetings were attended:
Milk SA Research application: 30 October 2024
Milk SA Research and Development Mancom: 31 October 2024
Milk SA Dairy Research and Development Committee meeting: 19 November 2024
SAMPRO General meeting: 21 November 2024
Milk SA General meeting: 27 November 2024

6.6.2 Consumer Goods Council of South Africa: Food Safety Initiative (CGCSA: FSI)

The DSA as a 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: Front of Pack Labelling;
Agricultural Product Standards (APS) Act and draft regulation regarding management control systems;
Food loss and waste;
Follow-up discussions regarding assignees appointed under the APS Act.

6.6.3 South African National Consumer Union (SANCU)

The DSA as member of SANCU, presented at the general meeting on 25 September 2024 a .ppt presentation. No meetings were attended in the fourth quarter.

6.6.4 South African Society of Dairy Technology (SASDT)

The DSA members attended the SASDT meetings held respectively in the Western Cape and Gauteng.

6.6.5 Tertiary institutions

The 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 (EHPs). No meetings were scheduled during the last quarter of 2024.

No Non-achievements / underperformance has been reported

Goal 7 - Liaison on legislation with authorities

Achievements

The DSA continued to liaise with the authorities regarding the following legislation and standards:

7.1 Department of Health: Directorate: Food Control

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

Response upon industry submission of comments in respect of draft R3337: The draft regulations relating to the labelling and advertising of foodstuffs in 2023 by Department of Health is only expected during the first quarter of 2025.

7.2 Department of Agriculture Land Reform and Rural Development (DALRRD)

7.2.1 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 the Republic of South Africa (R1510/2019).

No target date has been provided yet for the first publication by DALRRD with regarding of the draft.

Progress regarding the establishment of a national residue programme as well as compliance to export

requirements to the EU and China continued during the fourth quarter.

7.2.2 Directorate Veterinary Public Health

Weekly foot and mouth disease (FMD Technical and Trade) meetings were attended where possible and interaction with the director and team took place regarding the establishment of a field and PCR test as surveillance mechanism in the Eastern Cape FMD affected areas. The establishment of the DSA brucellosis laboratory and corrections on non-conformances indicated by the directorate received priority attention.

7.3 South African National Standards (SABS)

The SANS Standards Writer was approached regarding SANS 1694 and 1488 relating to the welfare of dairy cattle and the transport of livestock. SABS has yet to finalise the date for the first work group meeting.

Interactions with SABS related to the administration and role of South African members and conveners in the African Organisation for Standardisation (ARSO) TC 04. The ARSO's monthly and plenary meetings were attended during the fourth quarter of 2024. Several draft standards have been published for comments in different stages of completion as the work of TC 04 is nearing the final stages of designated tasks.

7.4 Dairy Federation (IDF), Codex Alimentarius and International Organization for Standardization (ISO)

IDF: Work in programme comments received from IDF covered a spectrum of activities and comments were rendered where possible on work in progress of various standing committees.

Codex: The preparatory Codex Committee meetings were attended where possible as well as communication of the IDF on the relevant Codex meeting discussions. Comments on IDF and Codex draft documents were shared with the South African Codex contact point.

No Non-achievements / underperformance has been reported

Goal 8 - Information and education

Achievements

The DSA presents, with the assistance of Food Focus, monthly webinars to share relevant information with the dairy industry and interested role-players.
The **9th webinar**, on 23 October 2024 was attended by 54 people and the topic was "A practical approach to hygienic design of dairy equipment".

The 10**th webinar** and final webinar for 2024 featured the topic "Practical solutions to high somatic cell count in dairy herds" and was attended by 50 people on 20 November 2024.

Recordings of all the webinars on the Dairy Standard Agency's website are useful to re-cap or for interested parties not able to attend the webinars.

No Non-achievements / underperformance has been reported

Goal 9 - Media communication

Achievements

The DSA feedback media reports are sent out on a monthly basis to stakeholders. Three reports (October, November and December 2024 are attached to the quarterly report as additional information.

No Non-achievements / underperformance has been reported

Goal 10 - Development of guideline documentation

Achievements

The initial project work on a desktop study, collecting and compiling legal standards and listing active chemical substances for the purpose of drafting an industry guideline continued during the fourth quarter. This guideline document coincides with the planned work of establishing a national chemical residue monitoring program in collaboration with DALRRD. The work is to continue in 2025.

10.1 DSA new website development

The development work has been completed, and the new website has been successfully launched.

No Non-achievements / underperformance has been reported

Income and expenditure statement

Income and expenditure statement	December 2024 - CORFIN151 - PRJ-0366.pdf December 2024 - CORFIN173 - PRJ-0366.pdf
Unnecessary spending during period	No

Popular Report

DSA popular report Oct -Dec 2024.docx

Additional documentation

DSA December social media feedback report.pdf
DSA November social media feedback report.pdf
DSA October social media feedback report.pdf

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