SUMMARY OF THE KEY MARKET SIGNALS FOR THE DAIRY INDUSTRY

FEBRUARY 2024 EDITION

SYNOPSIS

International Situation

- The uncertainty about economic growth in the world and thus about the growth of the dairy industry in the world, is very high relative to previous years due to especially the increase in the intensity and number of military and other conflicts in the world. As a result, predictions about, for example, the supply of and demand for dairy products in the world in the rest of 2024, should be considered with great caution.
- According to the price index of dairy products of the FAO, the prices of dairy products in the international market decreased sharply from the very high levels achieved in the middle of 2022 to much lower levels in September 2023. Subsequently, the FAO price index for dairy products, increased up to February 2024, with 6.16 percent to a level 24.84 percent lower than the level in June 2022 and 13.41 percent lower than in February 2023.
- Future prices of dairy products in the international market, for delivery from April 2024 to August 2024, showed changes of less than 5.8 percent. New developments, which are possible, can result in meaningful changes in the prices in the rest of 2024.
- The average price of unprocessed milk in the EU increased sharply during 2022, but in 2023 and in the first two months of 2024, the price decreased to a level 20.51 lower than the highest price in 2022, which was recorded in December 2022.

South African Situation

- The profile of the factual position that the South African dairy industry is confronted with, as shown by the information available up to 22 March 2024, corresponds to a large extent, with the profiles of the positions described in the four editions of "Summary of the Key Market Signals for the Dairy Industry" published in 2023. Key aspects of the reality in which the South African dairy industry has to operate in the immediate future, are:
    - Very high levels of uncertainty in South Africa relative to previous years, due to the very high uncertainty in the world, likely continuation of poor service delivery by the public sector, possible disruptions linked to the general elections, uncertainty about the outcome of the general elections and its impact on policies and economic growth, as well as about the extent of the negative impact of unfavourable weather conditions in the recent past on the production of agricultural products, including the production of unprocessed milk and products used as feed for dairy cattle;
    - Consumer purchasing power eroded by the widespread increases of the administrated prices and the prices of consumer goods and services, high unemployment rate, poor service delivery by the public sector and lack of meaningful economic growth;
    - Lack of growth in the demand for most dairy products in terms of quantity and thus lack of growth in the demand for unprocessed milk. In the last quarter of 2023 and in the last month of 2023, an increase in the retail sales quantities of particular products did occur, but the opposite was true in respect of fresh milk and UHT milk. Approximately 40 percent of the production of unprocessed milk is used for the production of fresh milk and UHT milk;

SYNOPSIS (Continue)

- High increases in 2021, 2022 and 2023 of the producer price indices of unprocessed milk and dairy products, as well as high increases in the retail prices of dairy products. These high increases were not the result of higher demand in terms of quantity, as it took place in order to achieve levels of supply of the products concerned, which are more or less equal to the demand (which did not increase) in circumstances of significant increased production, manufacturing, distribution and marketing costs of the products concerned;
- Although the abovementioned high price increases contributed to the lower sales quantities of unprocessed milk and dairy products, it is highly likely that these price increases prevented significant decline in the production capacity of the South African dairy industry. Due to the complex and demanding nature of the South African dairy industry, it is extremely difficult to regain production capacity previously lost;
- Lower production of unprocessed milk in 2023, than in 2019, 2020, 2021 and in 2022. The estimated production in the first two months of 2024, was higher than in the same months of 2023, but lower than in the same months of 2022 and 2021;
- In 2022, the relationship between the index of the combined price of maize and soybean and the index of the producer price index of unprocessed milk, was very unfavourable in respect of the production of unprocessed milk. The opposite was true in respect of 2023, but it is likely that the unfavourable weather conditions experienced in the recent past in South Africa, can result in an increase in the prices of especially maize, lucerne and hay, as well as in lower production of pastures. Also, developments in the international markets may impact on the price of feed for dairy cattle; and
- The growth rate of the Gross Domestic Product (GDP) of South Africa of 1.2 percent in 2024, as expected by the SA Reserve Bank, against the background of the weak performance of the GDP in the previous four years, as well as the movements of other variables such as the rate of unemployment, do not support optimistic views about significant growth in the demand for consumer goods such as dairy products, in the immediate future. The risk that a lower growth rate of the GDP than 1.2 percent, will be achieved in 2024, is high.

- In light of the above description of the situation in respect of the dairy industry and the fact that most elements of the situation can change fairly quickly and meaningfully, the relevant variables should continuously be monitored, and changes should timeously be reacted to, in order to ensure that in South Africa, the supply of unprocessed milk and dairy products follows the demand for these products as closely as possible.

CHAPTER 1

Introduction

1. This report is a quarterly publication of SAMPRO and is prepared by the Office of SAMPRO, independently from the commercial interests of role players in the dairy industry.

2. The purpose of this report is, like that of the other regular reports of SAMPRO, to make market signals available to all interested parties, in order to promote the effective working of the markets for unprocessed milk and the different other dairy products, as envisaged by the Competition Act and which is in the interest of the consumer, the dairy industry and optimum use of national resources.

3. This report is of a macro nature and the position in South Africa of individual unprocessed milk producers, individual producers of processed milk and individual manufacturers of other dairy products, can differ from the macro position due to a variety of factors. **In the primary dairy industry** (the producers of unprocessed milk), differences are the result of factors like production regime (pasture-based or total mixed ration), sophistication in respect of the management (in respect of issues such as monitoring of individual animals, feeding, animal health, soil health and pastures), weather conditions, geographical location and the extent to which the producer is involved in the production of other agricultural products, which are complementary to the production of unprocessed milk (like the production of maize and lucerne). **In the secondary dairy industry** (the producers of processed milk and the manufacturers of the other dairy products), differences are the result of factors like product range, the reputation of the brand name, exposure to foreign competition, geographical location, the productivity and sophistication of equipment and systems in respect of the collection of unprocessed milk, processing, manufacturing, distribution and marketing as well as the extent to which the enterprise is involved in the manufacturing, distribution and marketing of products other than dairy products.

4. As a result of, as described in the previous paragraph, the diverse nature of the South African primary dairy industry and the diverse nature of the South African secondary dairy industry, the reaction of the different members of the primary dairy industry and different members of the secondary dairy industry, to the same set of market signals, can differ.

5. This report presents a summary of information regarding market signals for the South African dairy industry and more comprehensive information is available from the Office of SAMPRO. The information contained in this report, is the information available up to 22 March 2024.

CHAPTER 2

The International Markets for Dairy Products and Unprocessed Milk Markets in Major Dairy Countries

6. The FAO[1)] price index for dairy products traded internationally (See Graph 1 of Annexure A), is an important indicator of the macro conditions in international markets for dairy products. This index measures the changes of the prices achieved in the international market in respect of a basket of dairy products consisting of butter, cheese, skimmed milk powder and full cream milk powder. The other dairy products like UHT milk, yoghurt and maas, are not included in the basket, as the international trade of these products is relatively limited.

7. The movements of the FAO Price Index for dairy products in the last three years and in the first two months of 2024, can be summarised as follows:

   - In 2021, the highest monthly index of 130.4, exceeded the lowest index figure of 111.1 by 17.3 percent. The index in December 2021, of 130.4 was 19.4 percent higher than the index figure of 109.2 in December 2020;
   - In 2022, the highest index of 158.2, which was recorded in June 2022, exceeded the lowest of 134.4 which was recorded in January 2022, with 17.7 percent. The index in December 2022 of 148.5, was 13.8 percent higher than the index figure of 130.4 in December 2021;
   - In 2023, the highest index of 147.7 which was recorded in January 2023, exceeded the lowest of 112.0 which was recorded in September 2023, with 31.8 percent. From January 2023 to September 2023, the index decreased by 24.1 percent and from September 2023 to December 2023, it increased by 6.0 percent to a level of 118.8, which is 19.56 percent lower than in January 2023 and 20.0 percent lower than in December 2022; and
   - From December 2023 to February 2024, the index increased by 1.0 percent (the latest available information is in respect of February 2024) to a level:
     - 13.41 percent lower than in February 2023; and
     - 17.24 percent lower than in February 2022. (See Graph 1 of Annexure A)

8. Regarding the recent increase in the price index of dairy products, the FAO stated in March 2024, the following:

   "In February, world butter prices rose the most, underpinned by higher import demand from Asian buyers and seasonally declining milk production in Oceania. Meanwhile, whole milk powder prices continued to rise, albeit slowly, principally due to increased import demand, especially from China, which was partially offset by a drop in the European Union prices. Skim milk powder prices remained stable, as an increase in Oceania prices was nearly offset by lower European Union prices, largely reflecting lower import demand from the region due to higher shipping costs and transport delays stemming from the conflict in the Red Sea. International cheese prices also increased marginally, as buying interest from Asia turned positive amidst lower inventories in the European Union."

9. As shown in paragraph 7, the level of the price index for dairy products of the FAO, frequently changed.

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1) Food and Agricultural Organization of the United States.

10. In the last twenty-four years (2000 to 2023) the extent to which the highest monthly FAO dairy price index in a year, exceeded the lowest, varied from 3.4 percent in 2005, to 82.8 percent in 2007, and the average difference in the twenty-four years from 2000 to 2023, was 25.9 percent. (See Table 1 of Annexure A).

11. In the last eleven years (2012 to 2022) the extent to which the highest monthly FAO dairy price index in a year, exceeded the lowest, varied from 7.0 percent in 2019, to 58.8 percent in 2014. In the five years (2018 to 2022) the volatility varied from 7.0 percent to 17.7 percent, but in 2023, the volatility was higher namely 29.2 percent.

12. Important inputs in respect of the production of unprocessed milk, originate from the cereal and vegetable oil industries and the relative movements of the price indices of the three product groups are, on a macro level, indicative of the level of encouragement for the production of unprocessed milk. In 2022 and in 2023, the FAO Price Index for dairy products was lower than that of cereals, but in the first two months of 2024, the price index of cereals moved to a level lower than that of dairy products. In 2022 and 2023, the price index of vegetable oil, was higher than that of dairy products, but due to the decrease in the price index of vegetable oil and the increase in the price index of dairy products, the gap between the two indices decreased and in February 2024, the two indices were more or less in the same level. (See Graph 2 of Annexure A).

13. The FAO price index for dairy products reflects the changes in the prices of a basket of dairy products traded internationally and thus not the movements of the prices in the international trade of all the individual types of dairy products. Due to different supply and demand situations in respect of the different dairy products, the price movements of the different dairy products, often differ.

14. In 2022 and 2023, and in the first two months of 2024, the prices of butter and cheddar cheese in the international market, were higher than the prices of whole milk powder and skimmed milk powder. (See Graph 3 of Annexure A). The prices of the four types of dairy products, decreased from very high levels recorded in the first quarter of 2022, but:

    - From the middle of 2023, the price of butter increased and in February 2024, it was on a level close to the very high level recorded in the first quarter of 2022;
    - From November 2023 to December 2023, the price of cheddar cheese increased and from December 2023 to February 2024, the price moved sideways, at levels much lower than the very high levels recorded in the first quarter of 2023; and
    - From the third quarter of 2023, the prices of whole milk powder and skimmed milk powder increased to levels in February 2024, lower than the high levels recorded in the first quarter of 2023. (See Graph 3 of Annexure A)

15. Regarding future developments in respect of the prices of dairy products in the international markets, the future prices achieved at the Global Trade Auctions are good indicators.
    The changes in the prices of the dairy products achieved at the Global Dairy Trade Auction on 19 March 2024, for delivery from April 2024 to August 2024, are as follows:

    - The price of whole milk powder moves sideways from April 2024 to May 2024 and from May 2024 to August 2024, it increases to a level 4.1 percent higher than in April 2024;
    - The price of skimmed milk powder moves sideways from April 2024 to July 2024 and from July 2024 to August 2024, it increases to a level 2.1 percent higher than in April 2024;
    - The price of cheddar cheese decreases slightly from April 2024 to July 2024 and the price in July 2024 is 1.7 percent lower than in April 2024; and

- The price of butter moves sideways from April 2024 to July 2024 and from July 2024 to August 2024, it decreases to a level 5.8 percent lower than in April 2024. (See Table 2 of Annexure A).

16. The expectation of the United States Department of Agriculture regarding future prices of dairy products in the USA, published on 14 March 2024, indicates in respect of butter, cheddar cheese and skimmed milk powder, fairly sideways movements from the second quarter of 2024 to the fourth quarter of 2024. (See Graph 4 of Annexure A).

17. The level of uncertainty in respect of future international trade, including the future international trade in dairy products, is very high due to especially the escalating military and other conflicts in the world. Economic growth in the world according to the World Bank, is expected to be lower than in the past. The economic growth rate in the Peoples Republic of China in 2024, which is regarded by many as the engine of economic growth in the world, is expected to be lower in 2024 than in 2023.

18. Unprocessed milk production in the world is seasonal, as production in the winter is lower than the production in summer. The peak production season of the Northern Hemisphere coincides with the low production season of the Southern Hemisphere. The extent to which unprocessed milk production in different countries is seasonal, differs and, for example, the production in New Zealand is much more seasonal than in the member countries of the EU. (See Graph 5 of Annexure A).

19. The prices of unprocessed milk in different member states of the European Union (EU), differ, but the movements of the average price in the EU of unprocessed milk, give a good indication of the general trend. In summary, the movements of the average price of unprocessed milk in the EU in the years 2021, 2022 and 2023, and in the first two months of 2024, were as follows:

    - In 2021, the price increased and the price in December 2022, was 18.3 percent higher than in January 2021;
    - In 2022, the price increased sharply and the price in December 2022, was 41.1 percent higher than in December 2021;
    - In 2023, the price decreased from January to September by 22.1 percent and it increased from September 2023 to December 2023, by 7.3 percent, but the price in December 2023, was 20.0 percent lower than in December 2022; and
    - From January to February 2024 (the latest available information is in respect of February 2024), the price decreased by 0.83 percent to a level 13.1 percent lower than in February 2023. (See Graph 6 of Annexure A).

20. The movements of the price of unprocessed milk in the United States of America, in 2020, 2021, 2022 and 2023, were very volatile and the highest price exceeded the lowest, by approximately 52.0 percent. The monthly prices in 2022, were much higher than in any of the months of the years, 2015 to 2021. In the second half of 2022 and the first half of 2023, the price of unprocessed milk decreased by approximately 35.0 percent, from the middle of 2023 to October 2023 it increased, but it decreased again to a level at the end of 2023, approximately 26.0 percent lower than the highest price in 2022. (See Graph 7 of Annexure A).

21. The uncertainty about economic growth in the world and thus the growth in the demand for dairy products, is very high due to especially the increase in intensity and number of military and other conflicts in the world. As a result, predictions about, for example, the supply and demand for dairy products, should be considered with caution.

CHAPTER 3

The growth of the Gross domestic product (GDP) of South Africa, the level of Unemployment in South Africa and expectations regarding the demand for consumer goods in South Africa

22. On a macro level, the demand for products in South Africa, including the demand for consumer goods like dairy products, is influenced by the growth of the South African economy as shown by the Gross Domestic Product (GDP) figures of South Africa. This statement does not imply that the quantity of the sales of different products, like dairy products, changes to the same extent as the GDP. Due to many factors, such as climate, imports, price changes and changes in consumer preferences, the percentage change in the quantity of the sales of a particular South African product, can differ significantly from the percentage change in the GDP. Simply said, a general increase in the demand for consumer goods in South Africa, is dependent on the growth of the GDP of South Africa.

23. It is important not to only take into account the change in the GDP per quarter, which receives prominent attention in the news media, but to also take into account the growth in the GDP per year, as indicated in the following table.

The GDP of South Africa at constant 2015 prices [2)]

	R million	Index
2018	4 571 783	100.0000
2019	4 583 667	100.2599
2020	4 310 327	94.2811
2021	4 513 044	98.7152
2022	4 599 261	100.6010
2023	4 626 933	101.2063
2024 Estimate [3)]	4 682 456	102.4208
2024 Estimate [4)]	4 673 202	102.2184

2) Table prepared by the Office of SAMPRO based on information published in Statistical Release P0441 Gross Domestic Product, Fourth Quarter 2023 of Stats SA dated 5 March 2024.

3) According to a press release of the South African Reserve Bank, dated 25 January 2024, the expected growth in 2024, is 1.2 percent.

4) According to the "World Economic update" of the International Monetary Fund, dated January 2024, a growth rate of 1.0 percent is expected.

24. The following are important observations in respect of the table on the previous page:

a) The GDP in 2020 and 2021, was lower than in 2018 and 2019;

b) The GDP in 2022 was 0.60 percent higher than in 2018 and 0.34 percent higher than in 2019;

c) The GDP in 2023 was 0.6 percent higher than in 2022, 1.20 percent higher than in 2018 and 0.94 percent higher than in 2019;

d) If the GDP increases with 1.2 percent in 2024, as expected by the SA Reserve Bank, the GDP will be 2.42 percent higher in 2024, than in 2018 and 2.15 percent higher than in 2019; and

e) If the GDP increases with 1.0 percent in 2024, as expected by the International Monetary Fund, the GDP will be 2.21 percent higher in 2024, than in 2018 and 1.95 percent higher than in 2019.

25. The expected increase in the GDP in 2024, as shown in the previous paragraph, is an improvement relative to previous years, but not sufficient to support optimistic views about a significant increase in the demand for consumer goods in South Africa in the immediate future. In this regard the following should be noted:

a) From 2018 to 2022 the population of South Africa increased by 4.99 percent [5)] while the GDP increased by 0.60 percent. As a result, the GDP per capita in 2022, was lower than in 2018, and

b) If the GDP increases with 1.2 percent in 2024, the GDP in 2024, will be 2.42 percent higher than in 2018, which is much lower than the increase in population from 2018 to 2022 and it is reasonable to accept that the population increased from 2022 to 2023. As a result, the GDP per capita will be lower in 2024 than in 2018.

26. Factors that can prevent the expected growth in 2024 of the GDP of South Africa, include continuation of high levels of load shedding and poor service delivery by the public sector, possible disruptions linked to the general election and the outcome of the general election in South Africa in 2024 and possible international developments. The risk that the growth rate of the GDP in 2024, can be lower than 1.2 percent, is high.

27. The level of unemployment in South Africa is due to various reasons important, including the fact that it is one of a number of variables relevant in respect of expectations regarding future sales of consumer goods in South Africa.

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5) Statistical Releases titled "Mid-year population estimates" by Statistics SA, 2018, 2019, 2020, 2021 and 2022. Note that unemployment is measured as the number of persons not employed and who are actively seeking employment. The low level of unemployment in the second quarter of 2020 is indicative of the restriction of the movement of people as a result of Covid 19, which prevented people to actively seek employment.

28. The levels of unemployment in South Africa in the nine years from 2015 to 2023, are indicated in the following table.

Indices of rate of unemployment [6] in South Africa
First quarter 2015 = 100

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Average
2015	100.00	94.64	96.59	92.80	96.00
2016	101.13	100.75	102.65	100.37	101.22
2017	104.92	104.92	104.92	101.13	103.97
2018	101.13	103.03	104.16	102.65	102.74
2019	104.54	109.84	110.22	110.22	108.70
2020	114.01	88.25	116.66	123.10	110.50
2021	123.48	130.30	132.19	133.71	129.92
2022	130.68	128.40	124.62	123.86	126.89
2023	124.62	123.48	120.83	121.59	122.63

29. Major observations in respect of the table above, are as follows:

    a) The average rate of unemployment in 2023 was 3.35 percent lower than in 2022 and 5.61 percent lower than in 2021, but:

    - 10.97 percent higher than in 2020,
    - 12.81 percent higher than in 2019,
    - 19.35 percent higher than in 2018,

30. The above information about the high levels of unemployment in the recent past in South Africa, does not support optimistic views regarding a significant increase in the demand for consumer goods, like dairy products, in the immediate future.

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6) Table prepared by the Office of SAMPRO based on information published in Statistical Releases titled "Quarterly Labour Force Survey" by Statistics SA. Average calculated by the Office of SAMPRO by dividing the sum of the quarterly figures of the year by four.

CHAPTER 4

The South African Markets for Dairy Products and Unprocessed Milk

31. Regarding the imports and exports of dairy products by South Africa in 2022, the information obtained from SARS showed the following:

- The mass of imports of dairy products in 2022, was 30.0 percent lower than in 2021, and 12.6 percent lower than in 2020. The decrease from 2021 to 2022, is due to the decrease in imports of four of the six categories of dairy products;
- The average f.o.b. import prices in 2022, of five of the six different categories of dairy products, were higher than in 2021;
- The mass of exports of dairy products in 2022, was 1.8 percent higher than in 2021, and 11.2 percent higher than in 2020. The increase from 2021 to 2022, is due to the increase in exports of four of the six categories of dairy products;
- The average f.o.b. export prices in 2022, of the six categories of dairy products, were higher than in 2021;
- The mass of imports and exports in 2022, showed that South Africa was a net importer of concentrated milk (04.02), whey (04.04), butter (04.05), and cheese (04.06) and a net exporter of milk and cream (04.01), and buttermilk and yoghurt (04.03); and
- The exposure of the South African dairy industry to foreign competition (that is imports plus exports) in 2022, was the lowest in the eleven years from 2012 to 2022 (See Table 3, Table 4 and Table 5 of Annexure A).

32. In 2023:

- The mass of imports was 8.40 percent lower than in 2022, due to the decrease of imports of three of the six types of dairy products;
- The mass of exports was 7.95 percent higher than in 2022, due to the increase in exports of four of the six types of dairy products;
- The mass of the imports of milk and cream (04.01), buttermilk and yoghurt (04.03) and cheese (04.06), was lower than the mass of exports, while the opposite was true in respect of concentrated milk (04.02), whey (04.04) and butter (04.05);
- The average f.o.b. import prices in 2023 of four of the six types of dairy products, were higher than in 2022;
- The average f.o.b. export prices in 2023 of five of the six types of dairy products, were higher than in 2022; and
- The exposure of the South African dairy industry to foreign competition, was slightly less than in 2022 and it was the lowest in the twelve years from 2012 to 2023. (See Table 3, Table 4 and Table 5 of Annexure A).

33. The mass of the production of unprocessed milk in South Africa is seasonal just like in other countries, with high production in summer and low production in winter. In South Africa, in the sixteen years, 2008 to 2023:

- The highest production per day per month was in October (fourteen years), or November (two years);
- The lowest production per day per month was in April (three years), May (three years), or June (ten years); and
- The highest production per day per month was on average 34.8 percent higher than the lowest. The highest difference of 40.9 percent was recorded in 2021, the second highest of 40.7 percent was recorded in 2023, whilst the lowest of 25.2 percent, was recorded in 2015 and the second lowest of 29.0 percent, was recorded in 2012. (See Graph 8, Table 6 and Table 7 of Annexure A).

34. The seasonal decrease in the mass of the production of unprocessed milk in South Africa from October 2022 to June 2023, was 31.3 percent, which is:

- Higher than the average decrease of 26.4 percent in the same periods of the fifteen years 2008/2009 to 2022/2023; and
- The second highest decrease from October to June, recorded in the fifteen years from 2008/2009 to 2022/2023. The highest decrease of 32.6 percent, was recorded in respect of October 2021 to June 2022. (See Table 8 of Annexure A).

35. The seasonal decrease from October 2023 to February 2024, was 26.7 percent, which is:

- Higher than the average decrease of 24.5 percent in the same periods in the fifteen years 2008/2009 to 2022/2023; and
- The fourth highest decrease recorded in the sixteen years 2008/2009 to 2023/2024. The highest decrease of 30.4 percent was recorded in 2021/2022, the second highest of 29.8 percent was recorded in 2022/2023. (See Table 8 of Annexure A).

36. The seasonal increase from July 2022 to October 2023, was 34.9 percent, which is:

- Higher than the average increase of 29.7 percent, recorded during the same periods of the sixteen years from 2008 to 2023; and
- The second highest increase in the sixteen years from 2008 to 2023. The highest increase of 35.8 percent was recorded in respect of July 2021 to October 2021. (See Table 9 of Annexure A).

37. The mass of the production of unprocessed milk per year in South Africa, increased by 30.8 percent in the eleven year period from 2008 to 2019, but in each of the years 2020 to 2023, it decreased as follows:

- 0.16 percent from 2019 to 2020;
- 0.71 percent from 2020 to 2021;
- 1.56 percent from 2021 to 2022;
- 0.32 percent from 2022 to 2023 (See Table 10 of Annexure A).

Note that the lower production of unprocessed milk in a particular year does not mean that the production in each month of the year concerned was lower, as in:

- 2020 the production was in four months higher than in the same months of 2019;
- 2021 the production in five months was higher than in the same months of 2020;
- 2022 the production in three months was higher than in the same months of 2021; and
- 2023 the production was in four months higher than in the same months of 2022.

The net effect of the decrease in the production of unprocessed milk, in the years 2020 to 2023, is that the production in 2023 was 27.23 percent higher than in 2008.

38. The estimated production in the first two months of 2024, was 1.52 percent higher than in the same months of 2023, but respectively 0.15 percent and 0.95 percent lower than in the same months of 2021 and 2022.

39. Although the quantity of the production of unprocessed milk in South Africa changed from year to year, the pattern of production of unprocessed milk during each of the last fifteen years (2009 to 2023), as measured by the distribution of the total annual unprocessed milk production per quarter and per half year of each year, did not change in any particular direction, as is evident from Table 11 and Table 12 of Annexure A.

40. As indicated in previous editions of "Summary of Key Market Signals for the Dairy Industry", in the different years during which the production of unprocessed milk decreased, a number of factors were relevant. However, the fundamental reason for the lower production was the lower demand for unprocessed milk as result of the lower demand for South African dairy products, as referred to in paragraphs 62 to 64 of this report.

41. In 2021, the producer price index of unprocessed milk, increased in eight months and decreased in four months. The net result of the changes, was that the price index in December 2021, was 10.3 percent higher than in December 2020. (See Table 13 of Annexure A).

42. In 2022, the producer price index of unprocessed milk, increased in eight months, stayed in one month on the same level as in the previous month and decreased in three months. The net result of these changes, was that the price index in December 2022, was 16.3 percent higher than in December 2021. (See Table 13 of Annexure A).

43. In 2023, the producer price index of unprocessed milk increased in seven months and it decreased in five months. The net result of the changes is that the producer price index of unprocessed milk of 206.9 in December 2023 was:

- 11.65 percent higher than in December 2022;
- 29.96 percent higher than in December 2021; and
- 43.38 percent higher than in December 2020. (See Table 13 of Annexure A).

44. From December 2023 to January 2024 (the latest available information is in respect of January 2024), the producer price index of unprocessed milk increased by 1.3 percent to a level:

- 10.60 percent higher than in January 2023;
- 26.95 percent higher than in January 2022; and
- 36.28 percent higher than in January 2021. (See Table 13 of Annexure A).

45. The producer price index of unprocessed milk was in most months of 2023, the highest of the producer price indices of the five primary dairy products covered by the monthly reports of the Office of SAMPRO, at the end of 2023, it was more or less at the same level as the producer price indices of live animals and cereals and in January 2024, it was again the highest. (See Graph 9 of Annexure A).

46. Regarding the sharp increases in the prices of unprocessed milk in the years 2021, 2022 and 2023, the following is relevant:

> Production costs do not determine prices, as prices are determined by the interaction between supply and demand, but production costs determine the quantity which will be supplied at a given price. If the quantity of the supply is lower than the quantity of the demand, the price increase and vice versa. The sharp price increases in respect of unprocessed milk, as described in the previous paragraph, were not intended to meet additional demand, as the demand for dairy products, which determines the demand for unprocessed milk, did not increase. Amidst sharp increases in the production costs of unprocessed milk, the price increases in respect of unprocessed milk, were motivated by the need to maintain supply at a level close to the demand, which did not increase as shown by the retail sales quantities for dairy products, it is highly likely that these price increases prevented significant decline in the production capacity of the South African dairy industry. Due to the complex and demanding nature of the dairy industry, it is very difficult to regain production capacity previously lost.

47. The producer price index of unprocessed milk was:

- In 2021, with the exception of September, October and December, higher than the producer price index of dairy products;
- In 2022, with the exception of September and October, higher than the producer price index of dairy products; and
- In 2023 as well as in the first month of 2024, higher than the producer price index of dairy products. (See Graph 10 of Annexure A).

48. In eight months of 2021, in 2022 and in the first two months of 2023, the producer price index of unprocessed milk was below the producer price index of "cereals and other crops" but the opposite is true in respect of March 2023 to January 2024. The extent to which the price index of unprocessed milk exceeded the price index of "cereals and other crops", declined from the middle of 2023, but in January 2024, it increased. (See Graph 9 of Annexure A). On a macro level, the comparison between these two indices is one of the indicators of the level of encouragement to produce unprocessed milk. More specific and relevant comparisons on a macro level, are the comparisons of the producer price index of unprocessed milk with the indices of the prices of yellow maize, soybean and the index of the combined price of maize and soybean (consisting of 70 percent of the yellow maize price and 30 percent of the soybean price). (See Graph 11 of Annexure A). Important inputs in respect of the manufacture of concentrated feed for dairy cattle, originate from maize and soybean, see footnote 7. In respect of the movements of the price indices of maize, soybean and the index of the combined maize and soybean price, the following:

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7) To some extent, products originating from yellow maize and soybean, can as ingredients of dairy cattle feed, be replaced by other products (like oil cake from other oil seeds and products from other grains, such as barley). Other products, not originating from grains, are also ingredients of dairy cattle feed. Due to this position and other factors like manufacturing, distribution and marketing cost of concentrated dairy cattle feed, the prices of maize and soybeans cannot, in a cost accounting way, be used to determine what the price of dairy cattle feed should be.

- From the second quarter of 2020, the prices of maize and soybean increased sharply. As a result, the index of the combined maize and soybean price increased in the last quarter of 2020 to a level higher than the producer price index of unprocessed milk, which previously happened in 2016, when the production of unprocessed milk was 0.45 percent lower than in the previous year;
- In February 2021, the producer price index of unprocessed milk increased to a level higher than the index of the combined maize and soybean price. Due to further increases in the producer price index of unprocessed milk and a decrease in the index of the combined maize and soybean price, the extent to which the producer price index of unprocessed milk exceeded the index of the combined maize and soybean price, increased from February 2021 to July 2021. Due to the decrease in the producer price index of unprocessed milk in July 2021, August 2021 and September 2021 and increases in the prices of maize and soybean, the extent to which the producer price index of unprocessed milk exceeded the index of the combined maize and soybean price, decreased sharply from July 2021 to December 2021;
- In the first eight months of 2022, the producer price index of unprocessed milk was, with the exception of one month, higher than the combined maize and soybean price, but in the last four months, the opposite was true. The relationship between the producer price index of unprocessed milk and the index of the combined maize and soybean price in 2022, was much more unfavourable in respect of the encouragement of the production of unprocessed milk, than it was the case in most months of 2021 and in most months of 2020, as well as in 2019, 2018 and 2017; and
- In 2023 and in the first month of 2024, the relationship between the producer price index of unprocessed milk and the index of the combined maize and soybean price, was more favourable than in 2022. (See Graph 11 of Annexure A)

49. Regarding the <u>future price movements of yellow maize and soybean</u>, the following:
    - The prices of yellow maize achieved on Safex on 13 March 2024, for delivery in April 2024, May 2024, June 2024, July 2024 and September 2024, were from 6.7 percent to 8.2 percent higher than the prices achieved on 16 October 2023, for delivery in the same months;
    - The price of yellow maize achieved on Safex on 13 March 2024, for delivery in September 2024, was 0.72 percent higher than the price for delivery in March 2024 (See Table 14 of Annexure A);
    - The prices of soybean achieved on Safex on 13 March 2024, for delivery in March 2024, was 5.3 percent lower than the price achieved on 16 October 2023, but the prices for delivery in May 2024 and July 2024, achieved on 13 March 2024, were respectively 3.2 percent and 3.7 percent higher than the prices achieved on 16 October 2023; and
    - The price of soybean achieved on Safex on 13 March 2024, for delivery in July 2024, was 2.8 percent higher than the price for delivery in March 2024. (See Table 15 of Annexure A).

50. It should be noted that, <u>while the prices of maize and soybean in the international market declined, the prices in South Africa increased</u> due to the expected negative impact of unfavourable weather conditions on the production of maize and soybean in South Africa in 2024.

51. The primary agricultural industry, including the primary dairy industry experienced in 2022 high increases of the prices of inputs such as the prices of fertilizer. (See Tables 16, 17 and Graph 8 of Annexure A).

52. Regarding the producer price index of dairy products, it should be noted that it measures the changes in the prices of a basket of dairy products consisting of milk, yoghurt, cheddar cheese and ice cream and the basket does not include the other dairy products like milk powder, maas, flavoured milk, butter, and cheese, other than cheddar cheese.

53. In 2021, the producer price index of dairy products increased in nine months and decreased in three months. The net result of these changes was that the price index in December 2021, was 10.66 percent higher than in December 2020. (See Table 18 of Annexure A).

54. In 2022, the producer price index of dairy products increased in eight months, stayed the same in one month and decreased in three months, namely in November and December. The net result of these changes was that the price index in December 2022 was 12.1 percent higher than in December 2021 (See Table 18 of Annexure A).

55. In 2023, the producer price index of dairy products increased in seven months and it decreased in five months. The net result of these changes was that the price index of 192.8 in December 2023, was:

- 6.93 percent higher than in December 2022;
- 19.90 percent higher than in December 2021; and
- 32.69 percent higher than in December 2020. (See Table 18 of Annexure A).

56. From December 2023 to January 2024, the producer price index of dairy products increased by 3.6 percent to a level:

- 3.62 percent higher than in January 2023;
- 21.13 percent higher than in January 2022; and
- 31.10 percent higher than in January 2021. (See Table 18 of Annexure A).

57. In January 2024, the producer price index of dairy products, was the sixth highest producer price index of the nine groups of manufactured food products covered by the monthly reports of the Office of SAMPRO. (See Graph 13 of Annexure A).

58. The performance (quantity sold and price) of the different dairy products in the South African retail market differs, and often changes within a short period. (See Tables 20, 21 and 22 of Annexure A).

59. The key characteristics of the markets for the different dairy products differ. Changes, for example consumer preferences, in the prices of the different types of dairy products, competition from other products and services, the purchasing power of consumers and the level of economic growth of South Africa, influence the quantities sold.

60. In 2020, in the situation created by COVID-19 and the lockdown measures of the Government, the performance (in terms of sales quantity and retail price), in the South African retail market of specific dairy products namely, UHT (long life) milk, yoghurt, pre-packaged cheese, cream cheese, butter and cream was higher than in 2019, while the opposite was true in respect of fresh and flavoured milk.

61. In the February 2021 edition of the "Summary of the Key Market Signals for the Dairy Industry", it was stated that it should not be assumed that the good performance of most dairy products as achieved in 2020, will continue as, amongst other, "the lower level in South Africa of economic activity resulting from COVID-19, and of which the full extent will only be known later", can impact negatively "on the demand for food products including dairy products".

62. In 2021, the retail sales quantities of six of the nine dairy products of which the retail sales are monitored, were lower than in 2020.

63. In 2022, the retail sales quantities of six of the nine dairy products were lower than in 2021, and the opposite was true in respect of three dairy products, while the retail sales prices of each of the nine dairy products, increased.

64. Key observations in respect of the performance in the South African retail market of eight dairy products in 2023, as reported by NielsenIQ, and which are shown in Tables 20, 21 and 22 of Annexure A, are as follows:

    a) In 2023, the retail sales quantities of the eight dairy products were lower than in the previous year. The changes in the retail sales quantities of the eight dairy products, were as follows:

        - Fresh milk -5.9 percent;
        - UHT milk -4.3 percent;
        - Flavoured milk -8.7 percent;
        - Yoghurt -7.1 percent;
        - Maas -5.1 percent;
        - Pre-packaged cheese -0.6 percent;
        - Butter -4.3 percent; and
        - Cream -1.9 percent

b) In the six months which ended in December 2023, relative to the same six months of 2022, the retail sales quantities of the eight dairy products, were lower. The changes in the retail sales quantities of the eight dairy products, were as follows:

- Fresh milk -5.9 percent;
- UHT milk -1.4 percent;
- Flavoured milk -5.9 percent;
- Yoghurt -4.5 percent;
- Maas -2.7 percent;
- Pre-packaged cheese -0.09 percent;
- Butter -0.5 percent; and
- Cream -0.5 percent.

c) In the quarter which ended in December 2023, relative to the quarter which ended in December 2022, the retail sales quantities of four of the eight dairy products, were lower, while the opposite is true in respect of four of the dairy products. The changes in the retail sales quantities of the eight dairy products, were as follows:

- Fresh milk -5.4 percent;
- UHT milk -2.7 percent;
- Flavoured milk -3.4 percent;
- Yoghurt -1.8 percent;
- Maas 0.9 percent;
- Pre-packaged cheese 0.04 percent;
- Butter 2.4 percent; and
- Cream 0.1 percent.

d) In December 2023, relative to December 2022, the retail sales quantities of two of the eight dairy products, were lower while the opposite is true in respect of 6 of the eight dairy products. The changes in the retail sales quantities were as follows:

- Fresh milk -4.5 percent;
- UHT milk -4.2 percent;
- Flavoured milk 1.1 percent;
- Yoghurt 0.2 percent;
- Maas 5.3 percent;
- Pre-packaged cheese 1.3 percent;
- Butter 8.2 percent; and
- Cream 1.3 percent.

e) In 2023, the retail sales prices of the eight dairy products increased. The increases of the retail sales prices, were as follows:

- Fresh milk 11.5 percent;
- UHT milk 12.0 percent;
- Flavoured milk 5.8 percent;
- Yoghurt 7.9 percent;
- Maas 13.6 percent;
- Pre-packaged cheese 11.3 percent;
- Butter 1.3 percent; and
- Cream 9.6 percent.

f) In the six months which ended in December 2023, the retail sales prices of five of the eight dairy products increased, while the prices of three of the dairy products decreased. The changes in the retail sales prices, were as follows:

- Fresh milk 0.2 percent;
- UHT milk 0.5 percent;
- Flavoured milk -3.5 percent;
- Yoghurt -1.0 percent;
- Maas 1.9 percent;
- Pre-packaged cheese 8.0 percent;
- Butter -0.8 percent; and
- Cream 3.2 percent.

g) In the quarter which ended in December 2023, the retail sales prices of five of the eight dairy products increased, while the prices of three of the dairy products decreased. The changes in the retail sales prices were as follows:

- Fresh milk 1.2 percent;
- UHT milk 0.9 percent;
- Flavoured milk -4.2 percent;
- Yoghurt -0.8 percent;
- Maas 1.4 percent;
- Pre-packaged cheese 4.7 percent;
- Butter -1.3 percent; and
- Cream 3.2 percent.

h) From November 2023 to December 2023, the retail sales prices of eight dairy products increased. The increases of the retail sales prices were as follows:

- Fresh milk 1.9 percent;
- UHT milk 4.4 percent;
- Flavoured milk 1.7 percent;
- Yoghurt 0.4 percent;
- Maas 2.1 percent;
- Pre-packaged cheese 4.5 percent;
- Butter 5.0 percent; and
- Cream 3.1 percent.

65. In respect of retail sales quantities of dairy products in the last three years, the major observations are as follows:

- In 2021, the retail sales quantities of six of the nine dairy products of which were monitored, decreased;
- In 2022, the retail sales quantities of six of the nine dairy products which were monitored, decreased; and
- In 2023, the retail sales quantities of the eight dairy products which were monitored, decreased.

66. The decrease in the retail sales quantities of most dairy products in 2021, 2022 and 2023, as summarised in the previous three paragraphs, co-inside with the weak economic performance of the South African economy since 2019 (as referred to in Chapter 3 of this report) and the erosion of the purchasing power of consumers by high increases of administered prices, high increases in the prices of consumer goods and services (including high increases in the prices of dairy products), continuation of loadshedding and deterioration of service delivery by the public sector.

67. Although the retail sales quantities of each of the eight dairy products in 2023, were lower than in 2022, the retail sales quantities of:

- Four of the eight dairy products were higher in the quarter which ended in December 2023, than in the same quarter of 2022, but the increases in the retail sales quantities of three of the four products, were marginal namely 0.04 percent, 0.10 percent and 0.9 percent; and
- Six of the eight dairy products were higher in December 2023 than in December 2022 and the increase of the retail sales quantities of four of the six products were 1.3 percent of less.

The conclusion must be that during the last three months, the performance of four of the eight dairy products in the retail market, showed improvement and that in the last month of 2023, the performance of six of the eight dairy products showed improvement. In this regard it should be noted that:

- The retail sales quantities of fresh milk and UHT milk, did not increase in the last quarter of 2023 as well as in the last month of 2023, relative to the same quarter and month of 2022; and
- Approximately 40 percent of the production of unprocessed milk in South Africa, is used for the production of fresh milk and UHT milk.

68. The high increases in 2021, 2022 and 2023 in the producer price indices of unprocessed milk (see paragraphs 41 to 44) and dairy products (see paragraphs 53 to 56) and the high increases in the retail prices of dairy products, should be considered taking into account the high increases in the prices of other primary agricultural products and other manufactured food products, as well as the high increases in the input, production, distribution and marketing cost of unprocessed milk and dairy products, In this regard the following:

Production, distribution and marketing costs do not determine prices, as prices are determined by the interaction between supply and demand, but production, distribution and marketing costs determine the quantity which will be supplied at a given price. If the quantity of the supply is lower than the quantity of the demand, the price increases and vice versa. The sharp price increases in respect of unprocessed milk and dairy products were not intended to meet additional demand, as the demand for dairy products, which determine the demand for unprocessed milk, did not increase. Amidst sharp increases in the production, distribution and marketing costs of unprocessed milk and other dairy products, the price increases were motivated by the need to maintain supply at a level close to the demand, which did not increase as shown by the retail sales quantities for dairy products. Although these high price increases contributed to the lower sales quantities of unprocessed milk and dairy products, it is highly likely that these price increases prevented significant decline in the production capacity of the South African dairy industry. Due to the complex and demanding nature of the South African dairy industry, it is extremely difficult to regain production capacity previously lost.

69. The relative movements of the retail prices of particular dairy products in the nine years from 2015 to 2023 and in the first three quarters of 2023, are shown in Graph 14 of Annexure A. This graph shows, amongst others, that:

- The retail price index of butter was, since May of 2016, much higher than the retail price indices of the other dairy products. The reason for this increase in the price of butter, is the increased demand for butter fuelled by increased consumer preference for butter, supported by evidence regarding the nutritional and health value of butter, which pushed the previous negative views aside, as well as by the superior taste of butter;
- The retail price index of fresh milk was higher than the retail price indices of UHT milk, maas, yoghurt and pre-packaged cheese. In the first seven months of 2015, the retail price index of fresh milk, was higher than that of butter, but in August 2015, the retail price index of butter moved to levels much higher than the retail price index of fresh milk; and
- In 2019, 2020, 2021, 2022 and in 2023, the retail price index of maas was notably lower than that of the other dairy products. (See Graph 14 of Annexure A).

70. Regarding the difference between the average retail price per year of UHT milk and the average retail price per year of fresh milk, the following:

- In the years 2012 to 2016, the average retail price per year of UHT milk was from 3.9 percent to 11.4 percent higher than that of fresh milk;
- In 2017 and 2018, the average retail price per year of UHT milk, was respectively 0.2 percent and 3.7 percent lower than that of fresh milk;
- In 2019 and 2020, the average retail price of UHT milk was respectively 0.2 percent and 2.3 percent higher than that of fresh milk;

- In 2021 and 2022, the average retail price of UHT milk was respectively 3.1 percent and 1.9 percent lower than that of fresh milk; and
- In 2023, the average retail price of UHT milk was 3.3 percent higher than that of fresh milk. (See Table 23 of Annexure A).

71. Regarding the relative movements of the price of unprocessed milk and the prices of the different dairy products it should be taken into account that:
    - The production (supply) of unprocessed milk is much more seasonal than is the case with the demand for major dairy products;
    - The production of unprocessed milk is not only influenced by economic variables and decisions of the producers of unprocessed milk, but also by weather conditions and other factors like animal health issues, which can result in production that is higher or lower than the planned production, as determined by the expectation regarding the demand for unprocessed milk; and
    - Inputs other than unprocessed milk, are also required for the manufacture of dairy products and for the presentation of the dairy products in the retail. The total cost of packaging, electricity, fuel, water, capital, and labour, required for the manufacturing, distribution and marketing of dairy products, is higher than the cost of the unprocessed milk delivered at dairy factories.

72. The relative movements of the retail price of fresh milk, the retail price of UHT milk and the producer price of unprocessed milk, in the nine years, 2015 to 2023, against the background of the changes in unprocessed milk purchases per annum, are shown in Graph 15 of Annexure A. This graph shows that:
    - The prices concerned typically moved in the same direction but the magnitude of the changes of the prices concerned, differ;
    - The producer price index of unprocessed milk:
        - Moved in 2016 and 2017, close to the retail price index of fresh milk, in nine months of 2018, in 2019, in 2020 and in seven months of 2021 it was lower, but from March 2022 to December 2023, the producer price index of unprocessed milk was higher than the retail price index of fresh milk;
        - In the 108 months period from January 2015 to December 2023, the retail price index of UHT milk was, with the exception of one month in 2015, lower than the producer price index of unprocessed milk; and
    - The movements of the prices concerned are influenced by, amongst others, the total unprocessed milk purchases. The impact in the years concerned, of the higher and lower production of unprocessed milk on the prices of unprocessed milk and UHT milk, is more pronounced, than in the case of fresh milk. Obviously, the supply (production) of a product (including the supply of unprocessed milk), does not on its own, determine the price of the product, as prices are the result of the interaction between supply and demand. Production, distribution and marketing costs influence the quantity produced or manufactured at a specific price level, and if that quantity is lower than the demand, the price will increase while, if the opposite is true, the price will decrease. Typically, a change in production (supply), which is not in pace with the change in demand, results in price movements.

73. The relative movements of the retail price indices of yoghurt, maas and pre-packaged cheese, as well as the producer price index of unprocessed milk, against the background of the changes in the quantity of unprocessed milk purchased per annum, are shown in Graph 16 of Annexure A. This Graph shows that:

- The price of unprocessed milk is much more subject to change than the retail prices of the three dairy products concerned;
- The relationship between the movements of the retail prices of the three dairy products concerned and the movements of the price of unprocessed milk, is weaker than is the case in respect of the retail price of UHT milk and the price of unprocessed milk, as shown in Graph 14. In this regard, it should be noted that the contribution of the price of unprocessed milk to the price of maas, is much higher than the contribution of the price of unprocessed milk to the retail prices of yoghurt and pre-packaged cheese, due to the considerably higher value-adding required by the manufacture of the last mentioned two products. It should also be taken into account that recombined and reconstituted milk[8)] instead of unprocessed milk, can be used to manufacture maas and yoghurt; and
- In the 108 months from January 2015 to December 2023, the price index of unprocessed milk was at higher levels than the retail price indices of the three dairy products, with the exception of the period August 2018 to September 2018 and in the period November 2018 to February 2019, when the producer price index of unprocessed milk was lower than the retail price index of one of the three dairy products, namely yoghurt.

74. The profile of the factual position that the South African dairy industry is confronted with, as shown by the information available up to 22 March 2024, corresponds to a large extent, with the profiles of the positions described in the four editions of "Summary of the Key Market Signals for the Dairy Industry" published in 2023. Key aspects of the reality in which the South African dairy industry has to operate in the immediate future, are:

- Very high levels of uncertainty in South Africa relative to previous years, due to the very high uncertainty in the world, likely continuation of poor service delivery by the public sector, possible disruptions linked to the general elections, uncertainty about the outcome of the general elections and its impact on policies and economic growth, as well as about the extent of the negative impact of unfavourable weather conditions in the recent past on the production of agricultural products, including the production of unprocessed milk and products used as feed for dairy cattle;
- Consumer purchasing power eroded by the widespread increases of the administrated prices and the prices of consumer goods and services, high unemployment rate, poor service delivery by the public sector and lack of meaningful economic growth;
- Lack of growth in the demand for most dairy products in terms of quantity and thus lack of growth in the demand for unprocessed milk. In the last quarter of 2023 and in the last month of 2023, an increase in the retail sales quantities of particular products did occur, but the opposite was true in respect of fresh milk and UHT milk. Approximately 40 percent of the production of unprocessed milk is used for the production of fresh milk and UHT milk;

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8) The definitions of recombined milk and reconstituted milk, as stated in Regulation 1510, are as follows:

- ***"Recombined milk product" means milk or a milk product resulting from the combination of milk fat and milk-solids-non-fat in their preserved forms with or without the addition of water to achieve the appropriate milk product composition"; and***
- ***"Reconstituted milk product" means milk or a milk product resulting from the addition of water to the dried or concentrated form of the product in the amount necessary to re-establish the appropriate water to solid ratio".***

- High increases in 2021, 2022 and 2023 of the producer price indices of unprocessed milk and dairy products, as well as high increases in the retail prices of dairy products. These high increases were not the result of higher demand in terms of quantity, as it took place in order to achieve levels of supply of the products concerned, which are more or less equal to the demand (which did not increase) in circumstances of significant increased production, manufacturing, distribution and marketing costs of the products concerned;
- Although the abovementioned high price increases contributed to the lower sales quantities of unprocessed milk and dairy products, it is highly likely that these price increases prevented significant decline in the production capacity of the South African dairy industry. Due to the complex and demanding nature of the South African dairy industry, it is extremely difficult to regain production capacity previously lost;
- Lower production of unprocessed milk in 2023, than in 2019, 2020, 2021 and in 2022. The estimated production in the first two months of 2024, was higher than in the same months of 2023, but lower than in the same months of 2022 and 2021;
- In 2022, the relationship between the index of the combined price of maize and soybean and the index of the producer price index of unprocessed milk, was very unfavourable in respect of the production of unprocessed milk. The opposite was true in respect of 2023, but it is likely that the unfavourable weather conditions experienced in the recent past in South Africa, can result in an increase in the prices of especially maize, lucerne and hay, as well as in lower production of pastures. Also, developments in the international markets may impact on the price of feed for dairy cattle; and
- The growth rate of the Gross Domestic Product (GDP) of South Africa of 1.2 percent in 2024, as expected by the SA Reserve Bank, against the background of the weak performance of the GDP in the previous four years, as well as the movements of other variables such as the rate of unemployment, do not support optimistic views about significant growth in the demand for consumer goods such as dairy products, in the immediate future. The risk that a lower growth rate of the GDP than 1.2 percent, will be achieved in 2024, is high.

75. In light of the above description of the situation in respect of the dairy industry and the fact that most elements of the situation can change fairly quickly and meaningfully, the relevant variables should continuously be monitored, and changes should timeously be reacted to, in order to ensure that in South Africa, the supply of unprocessed milk and dairy products follows the demand for these products as closely as possible.

Alwyn P Kraamwinkel (MCom)
CEO: SAMPRO
28 March 2024

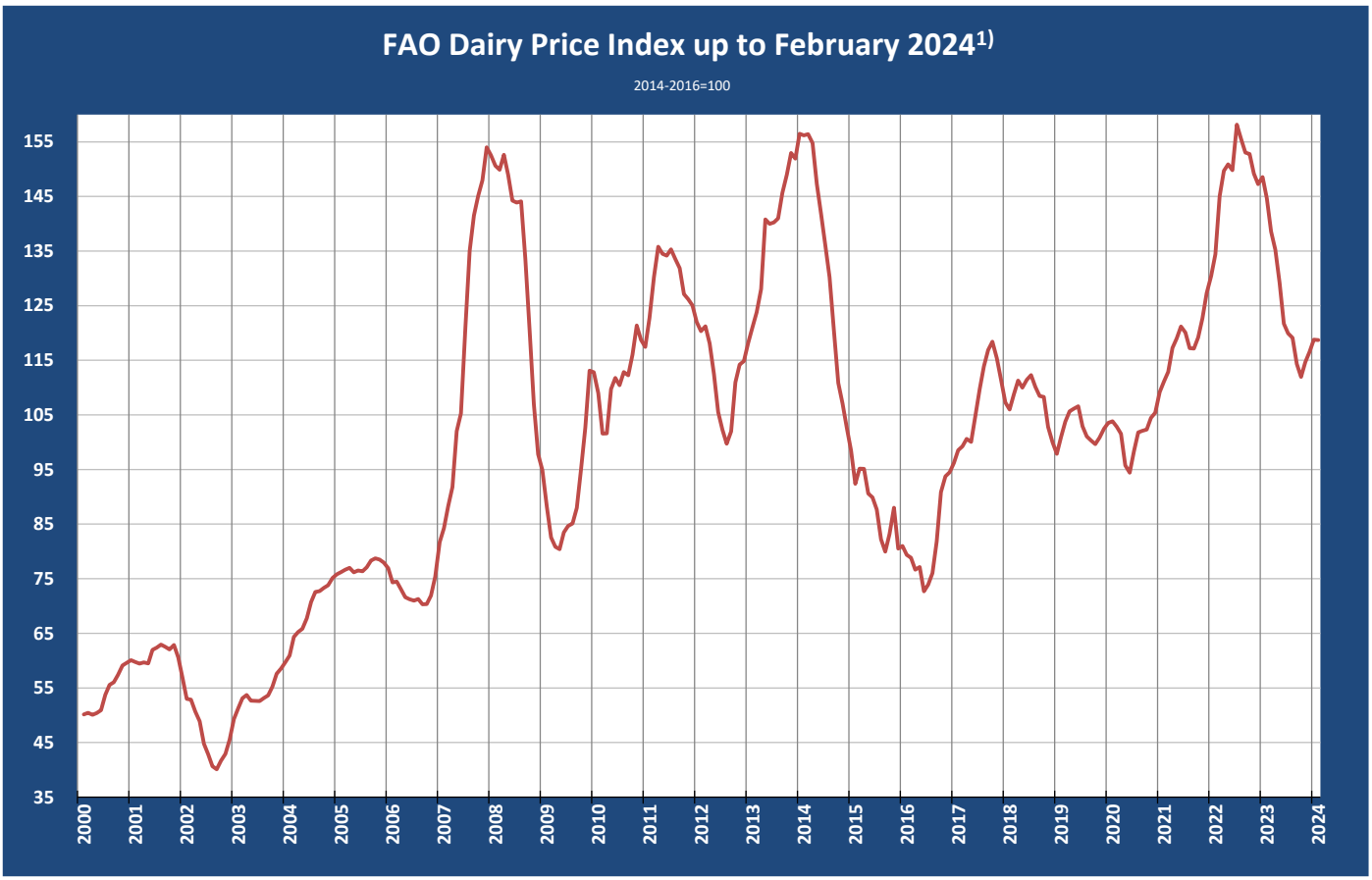
The following contributions to this report are acknowledged:	
De Wet Jonker (B.Econ/BCom Hons) ***Dr Ndumiso Mazibuko (Bsc Agric Econ, Msc, MBA, PhD)*** ***Marietjie le Roux (BCom)*** ***Jan Theron, (BCom Economy)***	***Collecting information, compiling of tables and graphs and assessment of information.***
Gerhard Venter (M.Sc Agric Food Science)	***Dairy Technical advice.***
Sonja van Jaarsveld	***Typing of draft versions of the report and typing of final report***

Annexure A

C O N T E N T

Graph 1[1)]

PRICE INDEX OF DAIRY PRODUCTS IN THE INTERNATIONAL MARKET UP TO FEBRUARY 2024, AS PUBLISHED BY THE FAO



1) *Graph prepared by the Office of SAMPRO based on information published by the FAO Food and Agricultural Organization (FAO) of the United Nations.*

Table 1[2)]

VOLATILITY PER YEAR OF THE PRICE INDEX OF THE FAO OF DAIRY PRODUCTS IN THE INTERNATIONAL MARKET

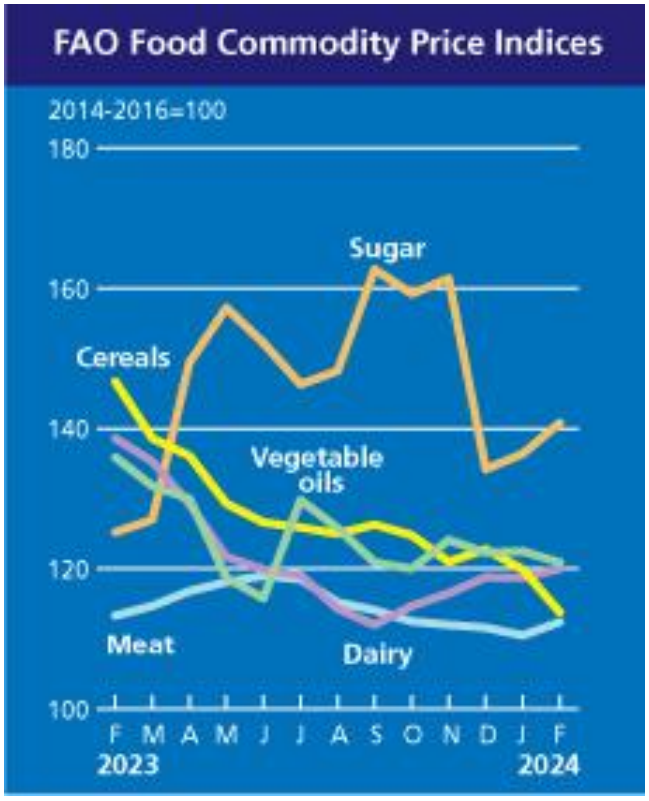
Index: 2014-2016=100

YEAR	A Highest Monthly Index	B Lowest Monthly Index	A Higher than B Percent
2000	60.1	50.1	20.0
2001	62.9	56.9	10.6
2002	53.0	40.1	32.2
2003	59.7	51.3	16.5
2004	75.8	60.9	24.4
2005	78.7	76.2	3.4
2006	81.7	70.3	16.2
2007	154.0	84.2	82.8
2008	152.6	94.9	60.9
2009	113.1	80.4	40.7
2010	121.4	101.6	19.5
2011	135.8	122.0	11.3
2012	121.2	99.7	21.6
2013	156.5	121.0	29.3
2014	156.4	98.5	58.8
2015	95.2	79.9	19.0
2016	96.2	72.7	32.3
2017	118.4	98.6	20.1
2018	112.3	97.8	14.7
2019	106.6	99.6	7.0
2020	109.2	94.4	15.7
2021	130.4	111.1	17.4
2022	158.2	134.4	17.7
2023	144.7	112.0	29.2
Average	110.6	87.9	25.9

2) Table prepared by the Office of SAMPRO based on information published by the FAO.

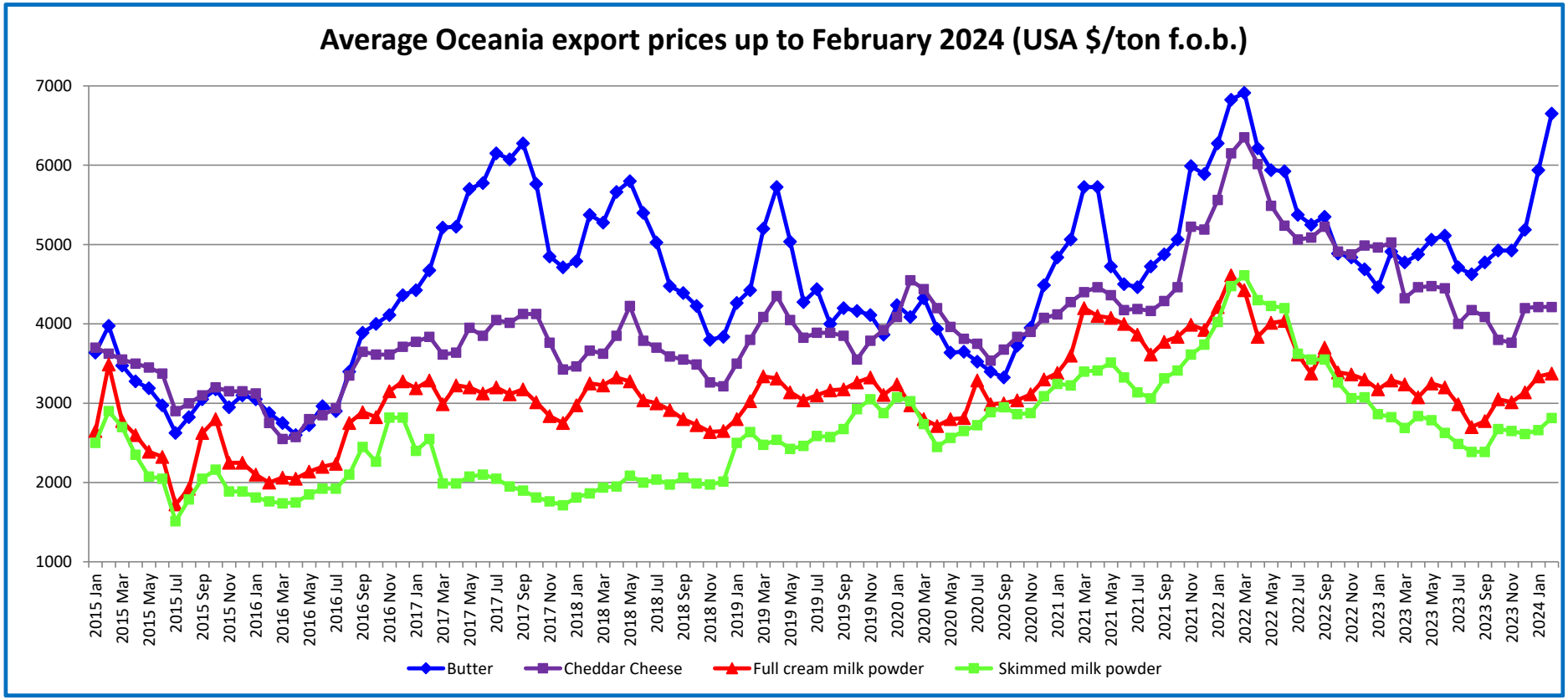
Graph 2[3)]

FAO FOOD COMMODITY PRICE INDICES



3) Graph as published by the FAO

Graph 3[4)]



4) Graph prepared by the Office of SAMPRO based on information published by the USDA on 29 February 2024

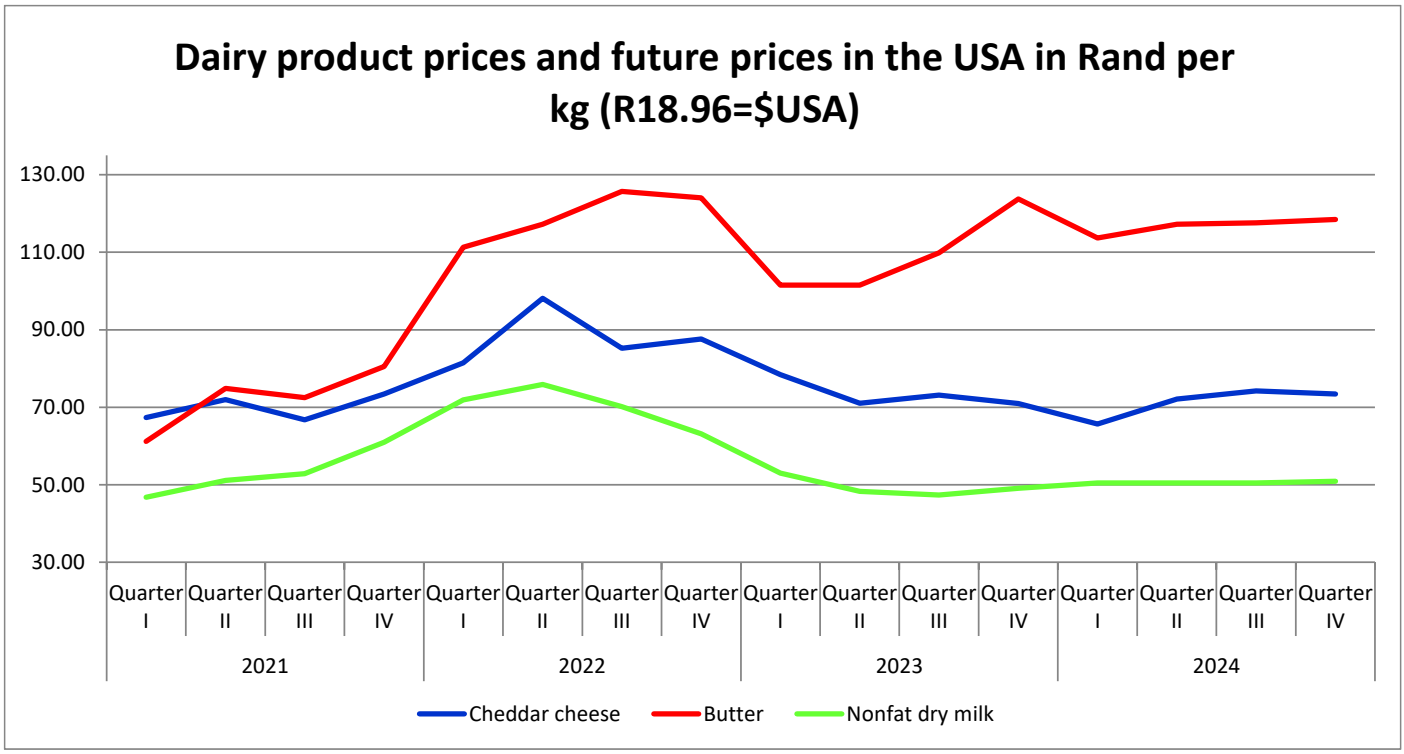
Table 2[5)]

FUTURE PRICES IN USA$ AND RAND ($=R19.00) PER TON ACHIEVED AT GLOBAL DAIRY TRADE AUCTION ON 19 MARCH 2024, FOR DELIVERY IN APRIL 2024 TO AUGUST 2024

	2024				
	Apr	May	Jun	Jul	Aug
Whole Milk Powder					
PRICE: $	3 253	3 250	3 333	3 375	3 385
PRICE: R	61 091	61 035	62 594	63 383	63 570
Index	100.0	99.9	102.5	103.8	104.1
Skimmed Milk Powder					
PRICE: $	2 649	2 615	2 686	2 670	2 704
PRICE: R	49 748	49 110	50 443	50 143	50 781
Index	100.0	98.7	101.4	100.8	102.1
Cheddar					
PRICE: $	4 335	4 315	4 267	4 263	N.a
PRICE: R	81 411	81 036	80 134	80 059	N.a
Index	100.0	99.5	98.4	98.3	N.a
Butter					
PRICE: $	6 517	6 415	6 564	6 595	6 141
PRICE: R	122 389	120 474	123 272	123 854	115 328
Index	100.0	98.4	100.7	101.2	94.2

5) Table prepared by the Office of SAMPRO based on the prices as published by "Global Dairy Trade" on 19 March 2024 and exchange rate on 25 March 2024, the index is based on the USA $ prices

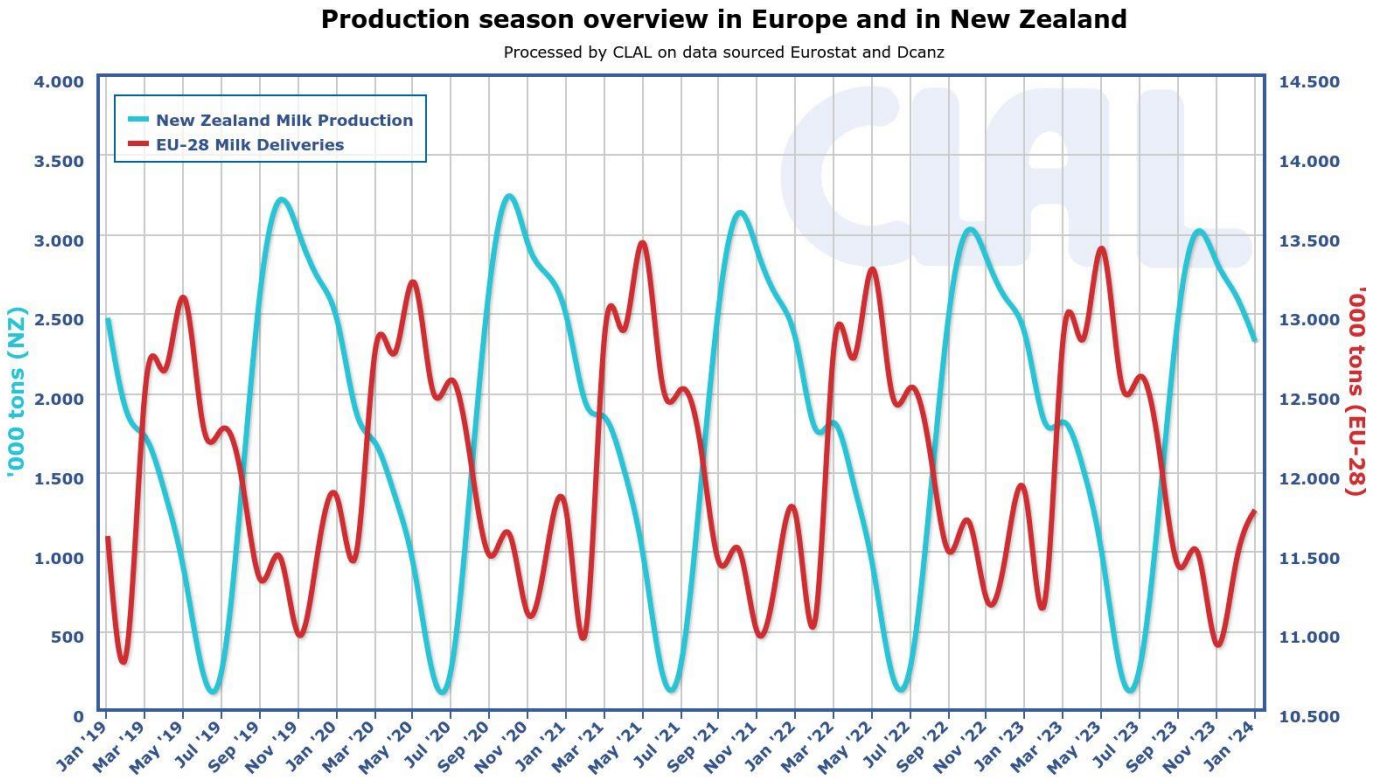
Graph 4[6)]



6) Graph prepared by the Office of SAMPRO based on information contained in the United States Department of Agriculture, Livestock, Dairy, and Poultry Outlook, 14 March 2024 and exchange rate on 20 March 2024

Graph 5[7)]

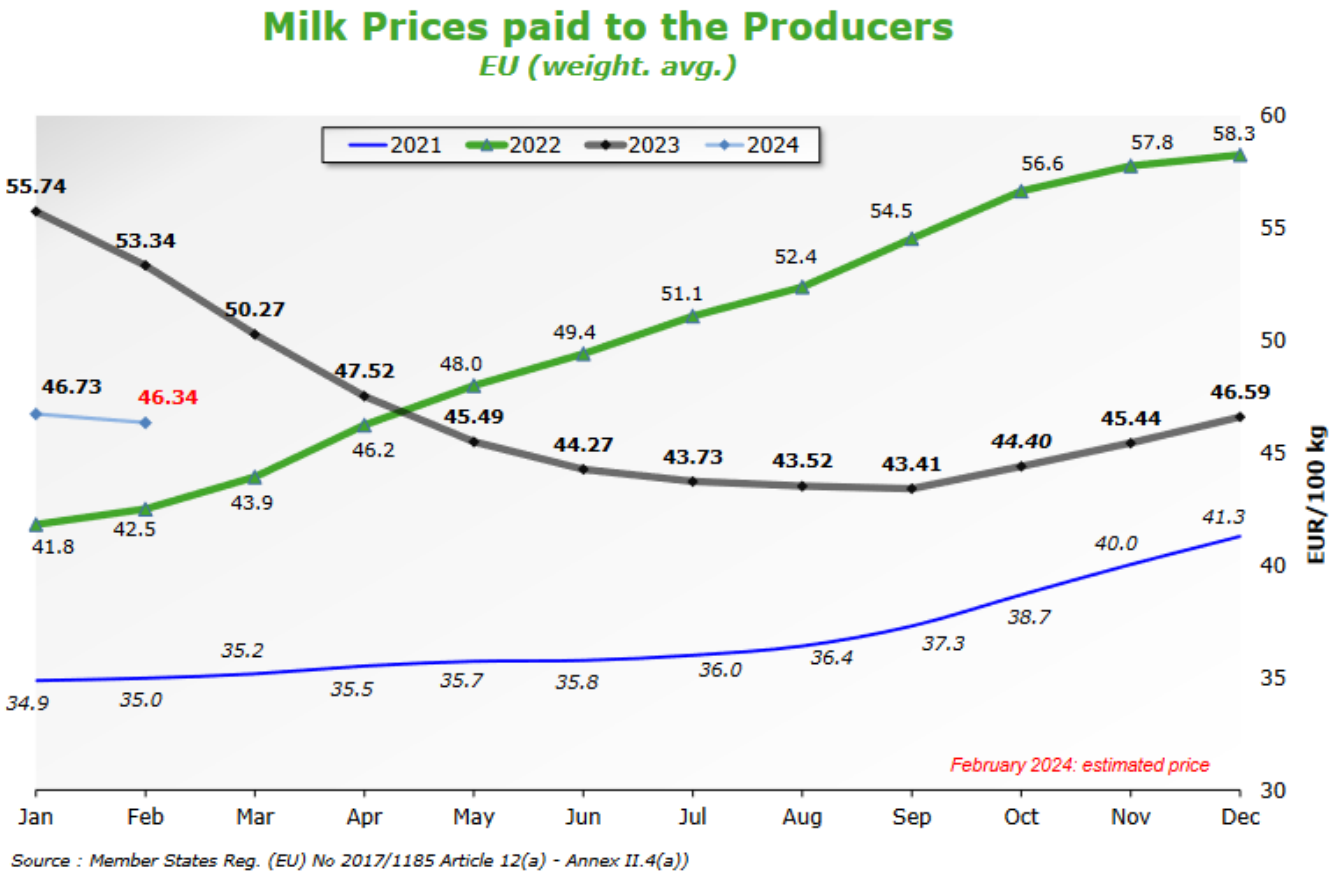
SEASONALITY OF UNPROCESSED MILK PRODUCTION IN THE NORTHERN AND SOUTHERN HEMISPHERES



7) Graph as published by CLAL.it

Graph 6[8)]

AVERAGE PRICE OF UNPROCESSED MILK IN THE EUROPEAN UNION

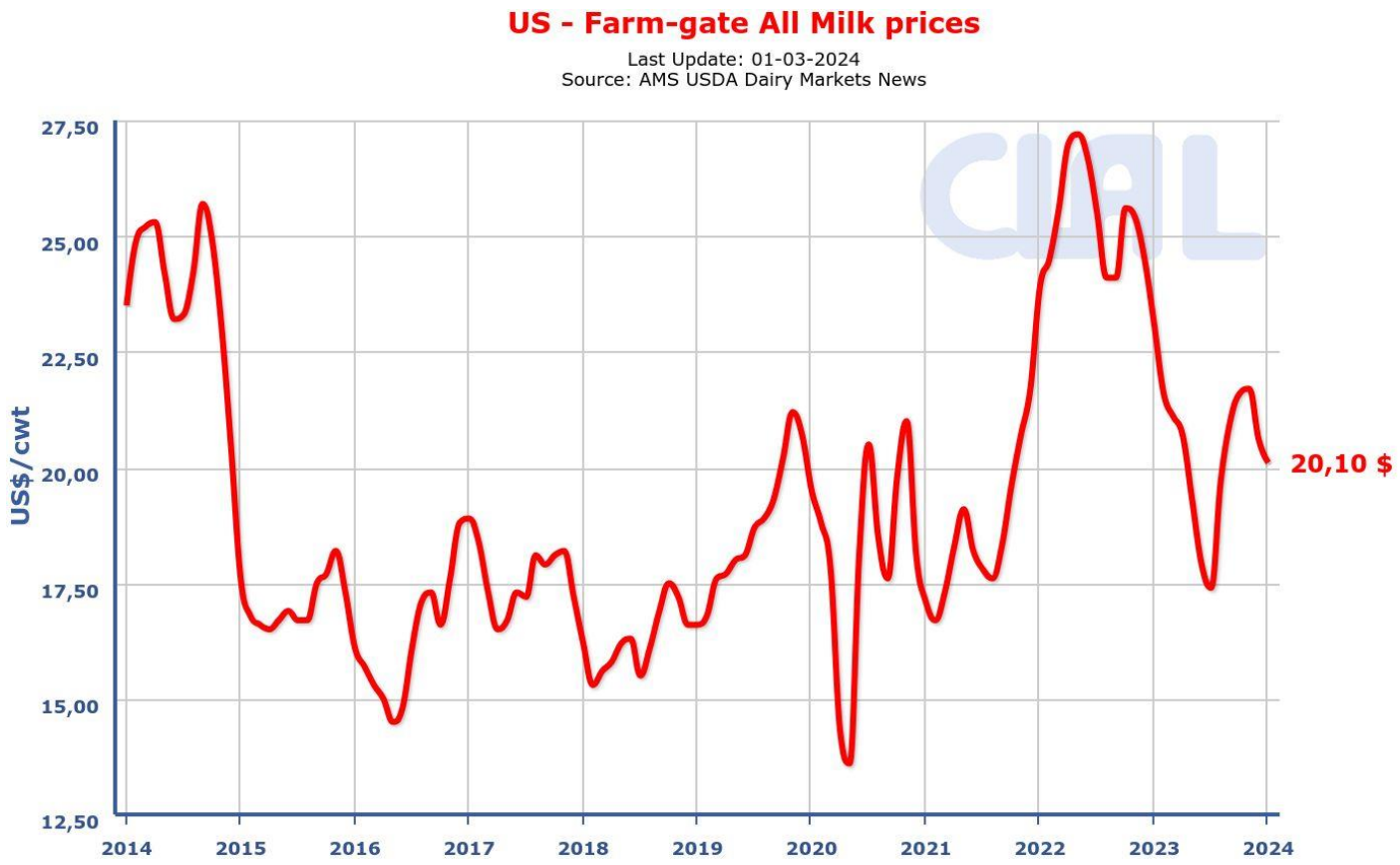


Source : Member States Reg. (EU) No 2017/1185 Article 12(a) - Annex II.4(a))

8) Graph as published by CLAL.it

Graph 7[9)]

UNPROCESSED MILK PRICES IN THE USA



9) Graph as published by CLAL.it

Table 3[10)]

TOTAL IMPORTS AND EXPORTS OF DAIRY PRODUCTS BY SOUTH AFRICA AND THE EXPOSURE OF THE SOUTH AFRICAN DAIRY INDUSTRY TO INTERNATIONAL COMPETITION (*THE SUM OF THE MASS OF IMPORTS AND EXPORTS*), IN THE YEARS 2002 TO 2023

Index: 2002 = 100)

YEAR	IMPORT		EXPORT		IMPORT PLUS EXPORT	
	TON	INDEX	TON	INDEX	TON	INDEX
2002	24 617.40	100.0	34 328.20	100.0	58 945.60	100.0
2003	24 458.80	99.4	22 905.20	66.7	47 364.00	80.4
2004	18 289.50	74.3	23 508.10	68.5	41 797.60	70.9
2005	30 771.40	125.0	17 216.00	50.2	47 987.40	81.4
2006	30 878.60	125.4	26 543.30	77.3	57 421.90	97.4
2007	44 313.00	180.0	18 516.50	53.9	62 829.50	106.6
2008	34 009.40	138.2	42 781.00	124.6	76 790.40	130.3
2009	32 373.40	131.5	41 770.70	121.7	74 144.10	125.8
2010	35 061.20	142.4	33 950.60	98.9	69 011.80	117.1
2011	37 714.40	153.2	41 817.10	121.8	79 531.50	134.9
2012	59 102.53	240.1	52 500.96	152.9	111 513.49	189.2
2013	35 673.76	144.9	70 481.90	205.3	106 155.66	180.1
2014	40 199.03	163.3	71 098.95	207.1	111 297.98	188.8
2015	69 353.98	281.7	61 296.87	178.6	130 650.85	221.6
2016	58 000.35	235.6	50 247.54	146.4	108 247.89	183.6
2017	83 504.44	339.2	48 626.69	141.7	132 131.13	224.2
2018	68 652.58	278.9	45 257.49	131.8	113 910.08	193.2
2019	75 596.08	307,1	45 051.75	131.2	120 647.83	204.7
2020	60 579.33	246.1	46 695.39	136.0	107 274.72	182.0
2021	75 618.94	307.2	50 990.95	148.5	126 609.89	214.8
2022	52 917.65	215.0	51 944.67	151.4	104 862.32	177.9
2023	48 468.87	196.9	56 074.63	163.3	104 543.50	177.4

10) Table prepared by the Office of SAMPRO on the basis of information obtained from SARS

Table 4[11)]

MASS OF IMPORTS AS PERCENTAGE OF THE MASS OF EXPORTS OF DAIRY PRODUCTS BY SOUTH AFRICA

Heading	Description	2015	2016	2017	2018	2019	2020	2021	2022	2023
04.01	Milk and cream, unsweetened	92.5	84.3	217.1	103.7	90.2	26.4	95.2	18.4	**25.0**
04.02	Milk, concentrated	197.7	196.3	146.4	159.5	227.9	252.8	257.6	153.4	**174.1**
04.03	Buttermilk powder, yoghurt	16.5	19.7	28.4	27.9	31.7	40.3	32.6	32.3	**34.6**
04.04	Whey, whey powder, etc	221.3	185.9	192.9	1 741.3	2 917.9	1 257.6	888.3	954.9	**640.0**
04.05	Butter, butter spreads and butter oil	344.1	396.7	491.2	735.1	355.5	540.6	340.4	293.9	**145.6**
04.06	Cheese and curd	314.2	330.3	338.7	272.5	252.7	141.7	144.6	118.7	**87.0**
TOTAL		**56.5**	**115.4**	**171.7**	**151.7**	**167.8**	**129.7**	**148.3**	**101.9**	**86.4**

11) Table prepared by the Office of SAMPRO on the basis of information obtained from SARS

Table 5[12)]

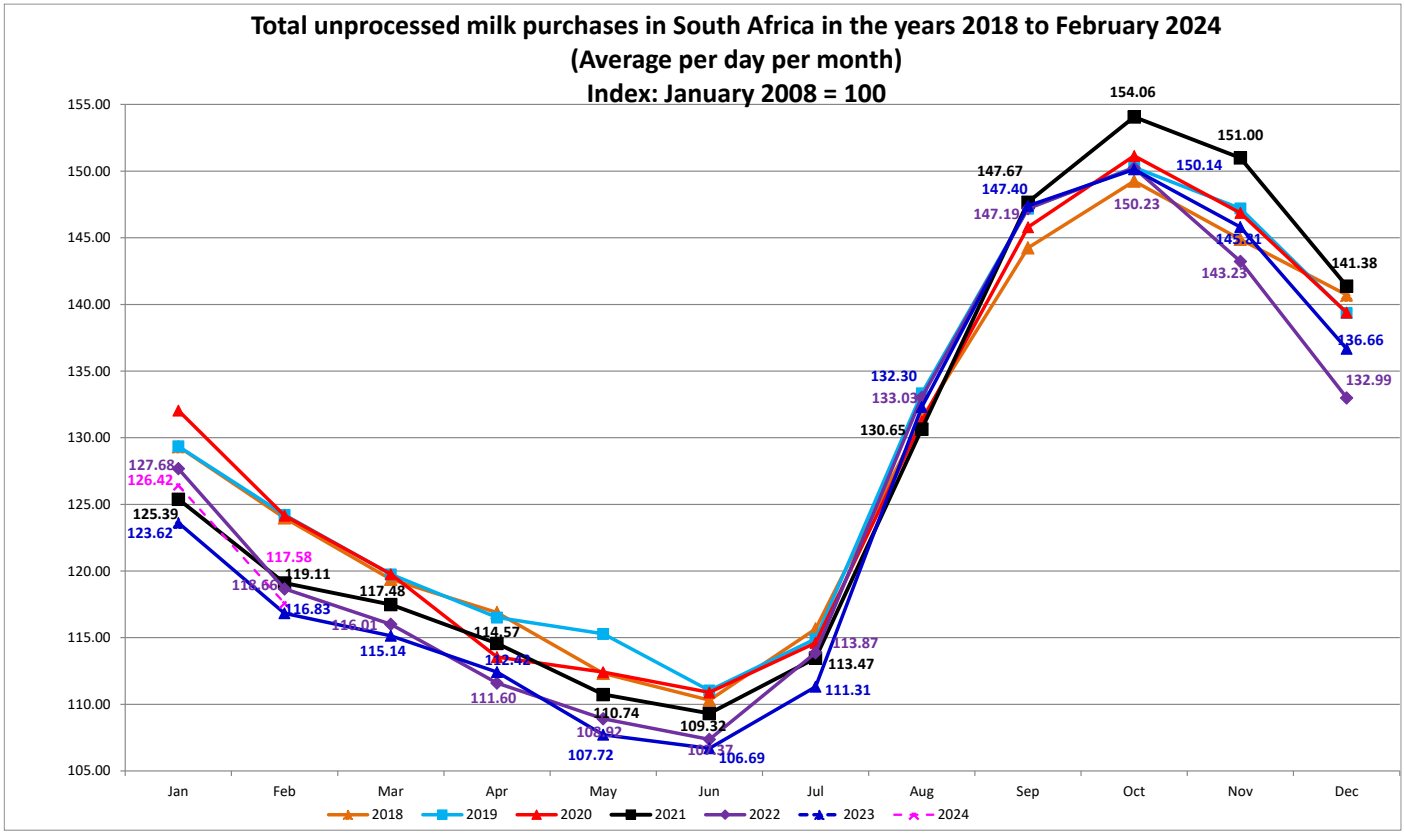
AVERAGE IMPORT AND EXPORT PRICES (F.O.B.) OF THE DIFFERENT TYPES OF DAIRY PRODUCTS, BY SOUTH AFRICA, IN 2022 AND 2023

PRODUCT	Import Price (f.o.b) R/kg		Export Price (f.o.b.) R/kg	
	2022	2023	2022	2023
(04.01) Milk and Cream	13.78	14.71	15.49	18.51
(04.02) Concentrated Milk	63.22	61.45	63.53	68.95
(04.03) Buttermilk and Yoghurt	60.42	45.07	22.54	26.25
(04.04) Whey	36.14	43.90	38.93	35.59
(04.05) Butter and Oils	87.18	111.67	79.68	97.15
(04.06) Cheese	88.67	111.07	70.75	77.68

12) Table prepared by the Office of SAMPRO on the basis of information obtained from SARS

Graph 8[13)]

AVERAGE UNPROCESSED MILK PURCHASES PER DAY PER MONTH IN SOUTH AFRICA IN THE YEARS 2018 TO FEBRUARY 2024



13) Graph prepared by the Office of SAMPRO on the basis of information obtained from MILK SA. The information in respect of 2018 to February 2024 is in respect of the total unprocessed milk purchased by all registered milk buyers declared in terms of Regulation 1652 of the Marketing of Agricultural Products Act and previous similar regulations. The figures for January 2024 February 2024 are estimated figures.

Table 6[14)]

DIFFERENCE BETWEEN THE HIGHEST AND LOWEST MASS OF PRODUCTION OF UNPROCESSED MILK PER DAY IN SOUTH AFRICA, IN THE YEARS 2009 TO 2023

Year	Percent
2009	35.3
2010	32.2
2011	32.0
2012	29.0
2013	29.9
2014	37.7
2015	25.2
2016	32.9
2017	39.5
2018	35.3
2019	35.3
2020	36.3
2021	40.9
2022	39.9
2023	40.7
Average 2009 to 2023	**34.8**

14) Table prepared by the Office of SAMPRO based on information obtained from Milk SA

Table 7[15)]

MASS OF UNPROCESSED MILK PURCHASES IN PARTICULAR MONTHS, RELATIVE TO THE PURCHASES IN THE SAME MONTHS OF PARTICULAR PREVIOUS YEARS

	Percentage increase
January 2020 relative to January 2019	2.1
February 2020 relative to February 2019	-0.05
March 2020 relative to March 2019	0.01
April 2020 relative to April 2019	-2.5
May 2020 relative to May 2019	-2.5
June 2020 relative to June 2019	-0.1
July 2020 relative to July 2019	-0.3
August 2020 relative to August 2019	-1.6
September 2020 relative to September 2019	-1.0
October 2020 relative to October 2019	0.6
November 2020 relative to November 2019	-0.2
December 2020 relative to December 2019	0.02
January 2021 relative to January 2020	-5.0
February 2021 relative to February 2020	-4.1
March 2021 relative to March 2020	-1.9
April 2021 relative to April 2020	0.9
May 2021 relative to May 2020	-1.5
June 2021 relative to June 2020	-1.4
July 2021 relative to July 2020	-1.0
August 2021 relative to August 2020	-0.4
September 2021 relative to September 2020	1.3
October 2021 relative to October 2020	1.9
November 2021 relative to November 2020	2.8
December 2021 relative to December 2020	1.4
January 2022 relative to January 2021	1.8
February 2022 relative to February 2021	-0.4
March 2022 relative to March 2021	-1.3
April 2022 relative to April 2021	-2.6
May 2022 relative to May 2021	-1.6
June 2022 relative to June 2021	-1.8
July 2022 relative to July 2021	0.4
August 2022 relative to August 2021	1.8
September 2022 relative to September 2021	-0.3
October 2022 relative to October 2021	-2.5
November 2022 relative to November 2021	-5.1
December 2022 relative to December 2021	-5.9
January 2023 relative to January 2022	-3.2
February 2023 relative to February 2022	-1.5
March 2023 relative to March 2022	-0.7
April 2023 relative to April 2022	0.7
May 2023 relative to May2022	-1.1
June 2023 relative to June 2022	-0.6
July 2023 relative to Jul 2022	-2.2
August 2023 relative to August 2022	-0.6
September 2023 relative to September 2022	0.1
October 2023 relative to October 2022	-0.1
November 2023 relative to November 2022	1.8
December 2023 relative to December 2022	2.8
January 2024 relative to January 2023 (est)	2.3
February 2024 relative to February 2023 (est)	4.2

15) Table prepared by the Office of SAMPRO based on information obtained from Milk SA

Table 8[16)]

DECREASE IN THE MASS OF MONTHLY UNPROCESSED MILK PURCHASES IN SOUTH AFRICA, FROM OCTOBER TO DECEMBER, OCTOBER TO FEBRUARY, OCTOBER TO APRIL AND OCTOBER TO JUNE, IN THE YEARS 2008 TO 2023

Year	October to December percent	October to February percent	October to April percent	October to June percent
2008/9	5.5	25.0	26.8	27.8
2009/10	3.9	22.8	23.0	23.7
2010/11	5.0	23.8	25.8	26.2
2011/12	5.6	20.0	22.1	20.8
2012/13	6.6	23.1	23.4	23.0
2013/14	5.3	25.9	25.4	24.4
2014/15	4.2	21.3	19.8	22.0
2015/16	7.7	21.3	23.1	24.6
2016/17	7.9	25.7	24.7	27.4
2017/18	4.0	22.2	21.4	25.8
2018/2019	5.7	24.8	24.4	28.0
2019/2020	7.3	22.7	26.9	28.6
2020/2021	7.8	28.8	26.6	30.0
2021/2022	8.2	30.4	29.9	32.6
2022/2023	11.5	29.8	27.6	31.3
Average 2008/9 to 2022/2023	6.4	24.5	24.7	26.4
2023/2024	9.0	26.7		

16) Table prepared by the Office of SAMPRO based on information obtained from MILK SA.

Table 9[17)]

INCREASE IN THE MASS OF MONTHLY UNPROCESSED MILK PURCHASES IN SOUTH AFRICA, FROM JULY TO AUGUST, JULY TO SEPTEMBER AND JULY TO OCTOBER IN EACH OF THE YEARS 2008 TO 2023

Year	July to August Percent	July to September Percent	July to October Percent
2008	10.8	18.3	24.6
2009	12.4	20.5	29.3
2010	9.7	15.9	24.2
2011	10.6	22.2	28.2
2012	10.3	17.9	25.6
2013	11.4	19.1	26.4
2014	13.0	23.1	32.9
2015	10.6	16.8	25.1
2016	12.9	23.2	30.8
2017	15.7	24.6	32.0
2018	13.6	20.7	29.0
2019	16.0	24.0	30.8
2020	14.5	23.1	31.9
2021	15.1	25.9	35.8
2022	16.8	25.1	32.1
2023	18.9	28.1	34.9
Average 2008 to 2023	**13.3**	**21.8**	**29.6**

17) Table prepared by the Office of SAMPRO on the basis of information obtained from MILK SA. The information in respect of 2008 to 2023 is in respect of the total unprocessed milk purchased by all registered milk buyers declared in terms of Regulation 1652 of the Marketing of Agricultural Products Act and previous similar regulations.

Table 10[18)]

TOTAL QUANTITY OF UNPROCESSED MILK PURCHASED IN SOUTH AFRICA DURING THE YEARS 2008 TO 2023

YEAR	UNPROCESSED MILK KILOGRAM	PERCENTAGE CHANGE FROM PREVIOUS YEAR	INDEX 2008 = 100
2008	2 624 511 678	2.50	100.00
2009	2 586 868 067	-1.43	98.57
2010	2 711 236 032	4.81	103.30
2011	2 720 402 147	0.34	103.65
2012	2 842 810 159	4.50	108.32
2013	2 905 811 947	2.22	110.72
2014	2 982 734 569	2.65	113.65
2015	3 172 655 770	6.37	120.89
2016	3 158 466 390	-0.45	120.34
2017	3 253 682 081	3.02	123.97
2018	3 410 535 904	4.82	129.95
2019	3 432 802 396	0.65	130.80
2020	3 427 335 378	-0.16	130.56
2021	3 403 100 413	-0.71	129.67
2022	3 349 861 004	-1.56	127.64
2023	3 339 272 379	-0.32	127.23

18) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.

Table 11[19)]

UNPROCESSED MILK PURCHASES PER QUARTER OF EACH OF THE YEARS 2009 to 2023										
Year	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Total	
	Kg	%	Kg	%	Kg	%	Kg	%	Kg	%
2009	620 043 005	23.969	560 531 455	21.668	658 577 140	25.458	747 716 467	28.904	2 586 868 067	100
2010	640 933 409	23.640	595 998 091	21.983	699 002 502	25.782	775 302 030	28.596	2 711 236 032	100
2011	654 701 438	24.066	597 343 799	21.958	694 671 935	25.536	773 684 975	28.440	2 720 402 147	100
2012	676 129 726	23.784	638 011 059	22.443	725 458 007	25.519	803 211 367	28.254	2 842 810 159	100
2013	683 707 219	23.529	646 811 485	22.259	746 796 407	25.700	828 496 836	28.512	2 905 811 947	100
Total (2009-2013)	3 275 514 797	23.792	3 038 695 889	22.072	3 524 505 991	25.601	3 928 411 675	28.535	13 767 128 352	100
Year	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Total	
	Kg	%	Kg	%	Kg	%	Kg	%	Kg	%
2014	683 060 914	22.900	650 998 523	21.826	766 083 031	25.684	882 592 129	29.590	2 982 734 597	100
2015	770 769 019	24.294	726 975 249	22.914	799 968 233	25.214	874 943 269	27.578	3 172 655 770	100
2016	752 226 598	23.816	701 859 008	22.222	806 386 965	25.531	897 973 819	28.431	3 158 446 390	100
2017	756 689 792	23.256	703 893 532	21.634	837 867 145	25.751	955 231 612	29.358	3 253 682 081	100
2018	814 831 903	23.892	750 437 490	22.004	873 519 325	25.612	971 747 186	28.493	3 410 535 904	100
Total (2014-2018)	3 777 578 226	23.632	3 534 163 802	22.120	4 083 824 699	25.558	4 582 488 015	28.690	15 978 054 742	100
Year	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Total	
	Kg	%	Kg	%	Kg	%	Kg	%	Kg	%
2019	816 208 186	23.777	757 906 127	22.078	882 584 853	25.710	976 103 230	28.435	3 432 802 396	100
2020	831 232 775	24.253	744 621 901	21.726	874 078 494	25.503	977 402 208	28.518	3 427 335 378	100
2021	791 682 285	23.264	739 610 710	21.733	874 291 459	25.691	997 515 959	29.312	3 403 100 413	100
2022	792 616 775	23.661	724 752 937	21.635	879 548 171	26.256	952 943 120	28.448	3 349 861 004	100
2023	777 738 787	23.291	722 335 713	21.632	872 561 910	26.130	966 635 969	28.948	3 339 272 379	100
Total (2019-2023)	4 009 578 808	23.651	3 689 227 388	21.762	4 383 064 887	25.855	4 870 600 486	28.731	16 952 371 570	100
Total (2009-2023)	11 062 571 831	23.690	10 262 087 079	21.976	12 001 395 577	25.700	13 381 500 176	28.656	46 697 554 664	100

19) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.
Quarters of which the percentage contribution to the total unprocessed milk purchases in the specific year were the highest relative to the contributions of the same quarters of the other years, are printed in red and the quarters with the lowest contributions, are printed in blue.

Table 12[20)]

UNPROCESSED MILK PURCHASES PER HALF YEAR IN EACH OF THE YEARS 2009 TO 2023

Year	First Half		Second Half		Total	
	Kg	%	Kg	%	Kg	%
2009	1 180 574 460	45.637	1 406 293 607	54.363	2 586 868 067	100.00
2010	1 236 931 500	45.622	1 474 304 532	54.378	2 711 236 032	100.00
2011	1 252 045 237	46.024	1 468 356 910	53.976	2 720 402 147	100.00
2012	1 314 140 785	46.227	1 528 669 374	53.773	2 842 810 159	100.00
2013	1 330 518 704	45.788	1 575 293 243	54.212	2 905 811 947	100.00
Total (2009-2013)	**6 314 210 686**	**45.864**	**7 452 917 666**	**54.136**	**13 767 128 352**	**100.00**

Year	First Half		Second Half		Total	
	Kg	%	Kg	%	Kg	%
2014	1 334 059 437	44.726	1 648 675 160	55.274	2 982 734 597	100.00
2015	1 497 744 268	47.208	1 674 911 502	52.792	3 172 655 770	100.00
2016	1 454 085 606	46.038	1 704 360 784	53.962	3 158 446 390	100.00
2017	1 460 583 324	44.890	1 793 098 757	55.110	3 253 682 081	100.00
2018	1 565 269 393	45.895	1 845 266 511	54.105	3 410 535 904	100.00
Total (2014-2018)	**7 311 742 028**	**45.761**	**8 666 312 714**	**54.238**	**15 978 054 742**	**100.00**

Year	First Half		Second Half		Total	
	Kg	%	Kg	%	Kg	%
2019	1 574 114 313	45.855	1 858 688 083	54.145	3 432 802 396	100.00
2020	1 575 854 676	45.979	1 851 480 702	54.021	3 427 335 378	100.00
2021	1 531 292 994	44.997	1 871 807 417	55.003	3 403 100 411	100.00
2022	1 517 369 712	45.296	1 832 491 291	54.704	3 349 861 004	100.00
2023	1 500 074 500	44.922	1 839 197 879	55.078	3 339 272 379	100.00
Total (2019-2023)	7 698 706 195		9 253 665 372			**100.00**
Total (2009-2023)	**21 324 658 909**	**45.665**	**25 372 895 752**	**54.335**	**46 697 554 664**	**100.00**

20) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.
Half years of which the percentage contribution to the total unprocessed milk purchases in the specific year, were the highest relative to the contributions of the same half years of the other years, are printed in red and the half years, with the lowest contributions, are printed in green.

Table 13[21)]

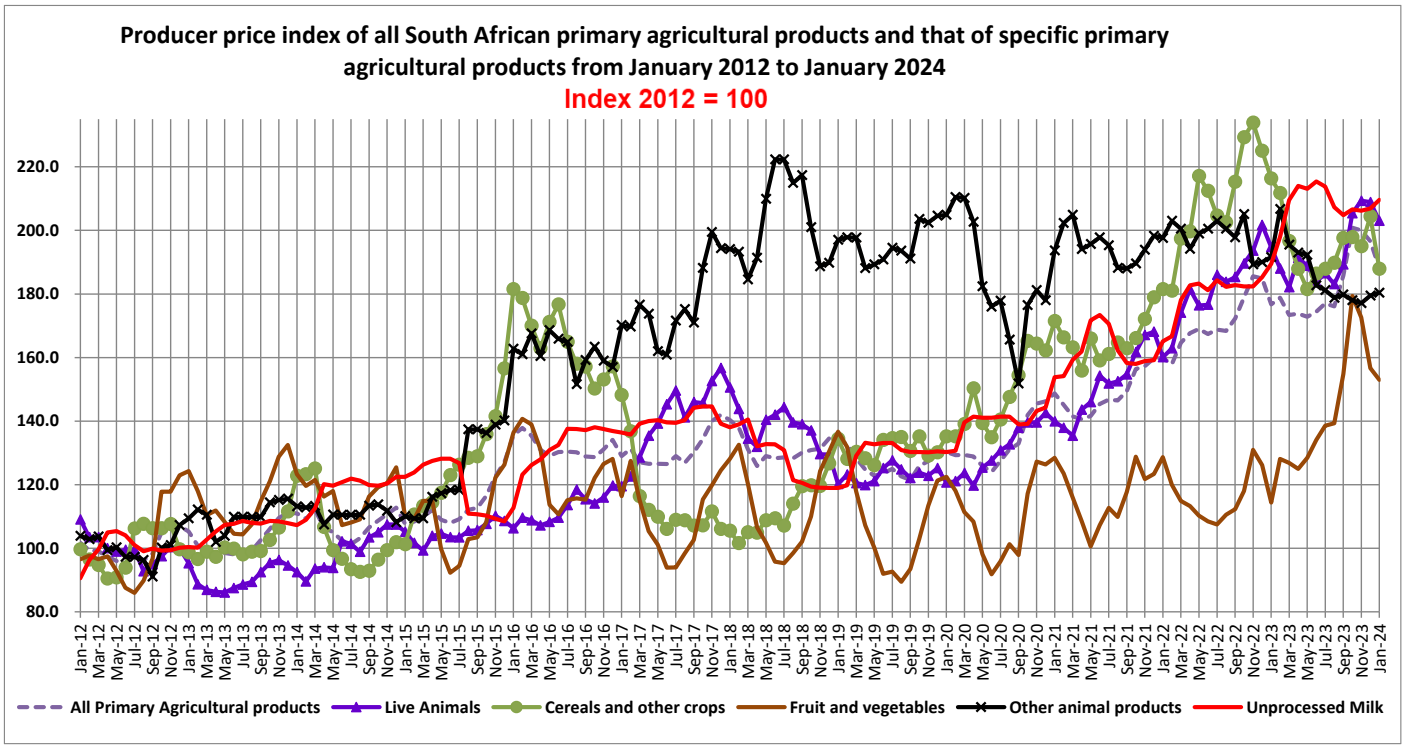
MONTHLY INCREASE IN THE PRODUCER PRICE INDEX OF UNPROCESSED MILK

	Percentage increase
April 2020 relative to March 2020	1.29
May 2020 relative to April 2020	-0.21
June 2020 relative to May 2020	0.00
July 2020 relative to June 2020	0.21
August 2020 relative to July 2020	0.00
September 2020 relative to August 2020	-1.70
October 2020 relative to September 2020	0.08
November 2020 relative to October 2020	2.93
December 2020 relative to November 2020	0.78
January 2021 relative to December 2020	6.58
February 2021 relative to January 2021	0.25
March 2021 relative to February 2021	3.33
April 2021 relative to March 2021	1.61
May 2021 relative to April 2021	6.07
June 2021 relative to May 2021	0.98
July 2021 relative to June 2021	-1.60
August 2021 relative to July 2021	-4.85
September 2021 relative to August 2021	-2.48
October 2021 relative to September 2021	-0.21
November 2021 relative to October 2021	0.59
December 2021 relative to November 2021	0.19
January 2022 relative to December 2021	3.72
February 2022 relative to January 2022	0.97
March 2022 relative to February 2022	6.84
April 2022 relative to March 2022	2.58
May 2022 relative to April 2022	0.34
June 2022 relative to May 2022	-1.16
July 2022 relative to June 2022	1.73
August 2022 relative to July 2022	-1.15
September 2022 relative to August 2022	0.34
October 2022 relative to September 2022	-0.22
November 2022 relative to October 2022	0.00
December 2022 relative to November 2022	1.59
January 2023 relative to December 2022	2.26
February 2023 relative to January 2023	4.49
March 2023 relative to February 2023	5.81
April 2023 relative to March 2023	2.15
May 2023 relative to April 2023	-0.42
June 2023 relative to May 2023	1.08
July 2023 relative to June 2023	-0.74
August 2023 relative to July 2023	-3.04
September 2023 relative to August 2023	-1.21
October 2023 relative to September 2023	0.88
November 2023 relative to October 2023	-0.19
December 2023 relative to November 2023	0.34
January 2024 relative to December 2023	1.30

21) Table prepared by the Office of SAMPRO based on information published by Statistics SA

Graph 9[22)]

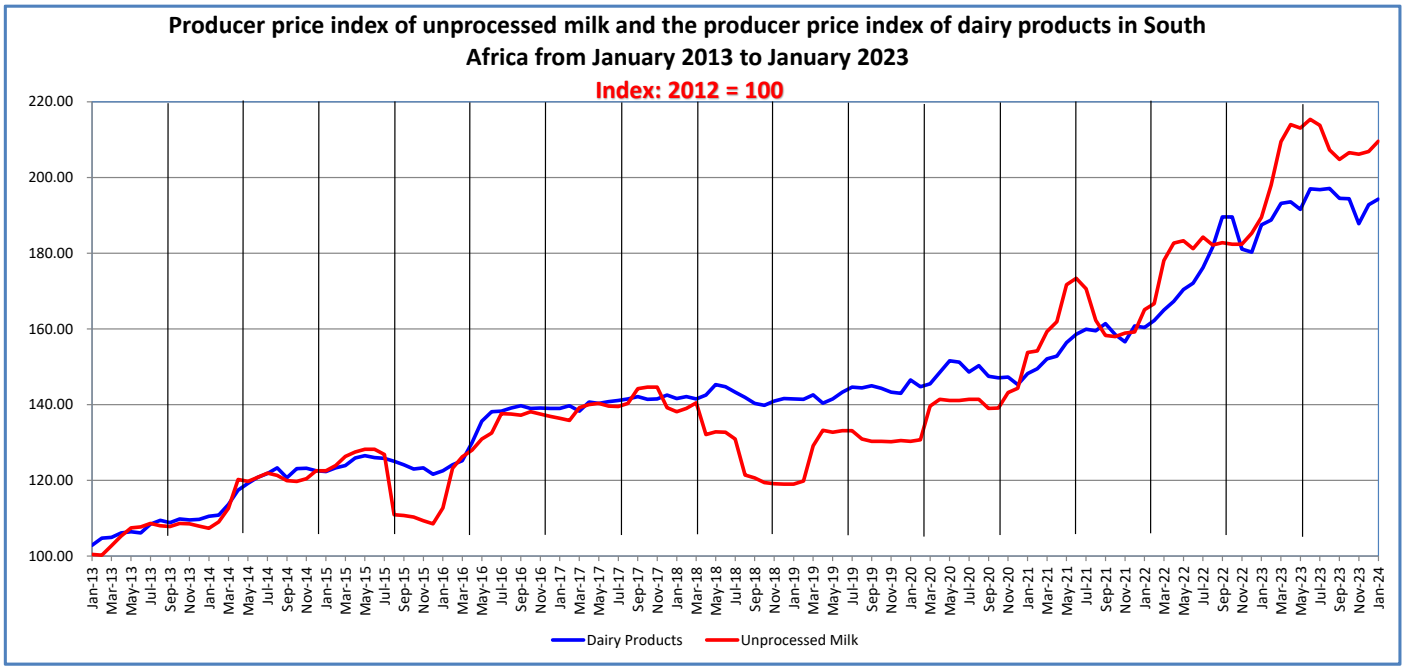
PRODUCER PRICE INDICES OF PRIMARY AGRICULTURAL PRODUCTS IN SOUTH AFRICA FROM JANUARY 2012 TO JANUARY 2024



22) Graph prepared by the Office of SAMPRO based on information published by Statistics SA

Graph 10[23)]

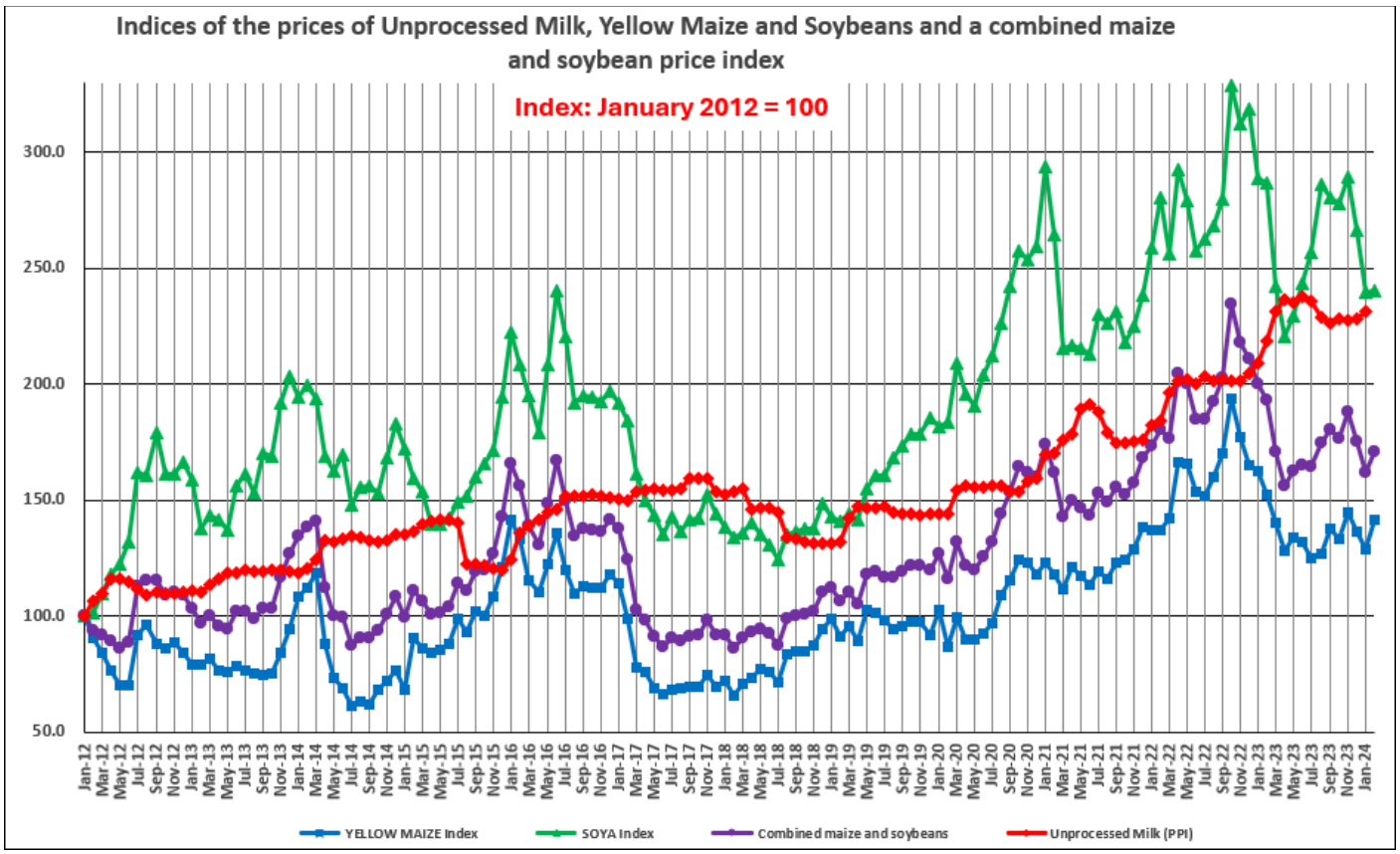
PRODUCER PRICE INDEX OF UNPROCESSED MILK AND THE PRODUCER PRICE INDEX OF DAIRY PRODUCTS IN SOUTH AFRICA, FROM JANUARY 2013 TO JANUARY 2024



23) Graph prepared by the Office of SAMPRO based on information obtained from Statistics SA. Note that the producer price index of dairy products measures the changes of the prices of a basket of dairy products consisting of fresh milk, UHT milk, yoghurt, cheddar cheese and ice cream and products like cheese other than cheddar, maas, butter and milk powder are not included.

Graph 11[24)]

INDICES OF THE PRICES OF UNPROCESSED MILK IN THE PERIOD JANUARY 2012 TO JANUARY 2024 AND THAT OF, YELLOW MAIZE AND SOYBEANS AND A COMBINED MAIZE AND SOYBEANS PRICE INDEX[25)] IN THE PERIOD JANUARY 2012 TO JANUARY 2024



INCREASE IN UNPROCESSED MILK PURCHASES RELATIVE TO PREVIOUS YEAR (PERCENT)[26)]

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
4.5	2.22	2.65	6.32	-0.45	3.02	4.82	0.65	-0.16	-0.71	-1.56	-0.32

24) Graph prepared by the Office of SAMPRO based on information obtained from Statistics SA and SAFEX middle of the month prices.

25) The combined maize and soybean price index is an index of prices equal to 70 percent of the yellow maize price, plus 30 percent of the soybean price.

26) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.

Table 14[27)]

FUTURE PRICES OF YELLOW MAIZE IN SOUTH AFRICA (R/TON) ON 16 OCTOBER 2023 AND 13 MARCH 2024 ACCORDING TO SAFEX

	A CLOSING BID 16 October 2023 R/Ton	B CLOSING BID 13 March 2024 R/Ton	C Percentage change from A to B
March 2024	3 960	4 283	8.2
May 2024	3 972	4 238	6.7
July 2024	3 950	4 255	7.7
September 2024		4 314	

Table 15[28)]

FUTURE PRICES OF SOYBEANS IN SOUTH AFRICA (R/TON) ON 16 OCTOBER 2023 AND 13 MARCH 2024 ACCORDING TO SAFEX

	A CLOSING BID 16 October 2023 R/Ton	B CLOSING BID 13 March 2024 R/Ton	C Percentage change from A to B
March 2024	9 010	8 535	-5.3
May 2024	8 380	8 650	3.2
July 2024	8 470	8 781	3.7
September 2024		8 750	

27 & 28) Tables prepared by the Office of SAMPRO based on information as obtained from the Grain SA website on 13 March 2024

Table 16[29)]

FERTILIZER PRICES IN SOUTH AFRICA IN MAY 2021 AND FEBRUARY 2024

Fertilizer	May 2021 Rand / Ton	February 2024 Rand / Ton	Percentage change from May 2021 to February 2024
LAN (28)	6 724	9 444	40.4
Urea (46)	7 880	11 197	42.1
MAP	11 753	15 711	33.7
KCL	6 856	10 741	56.7

Table 17[30)]

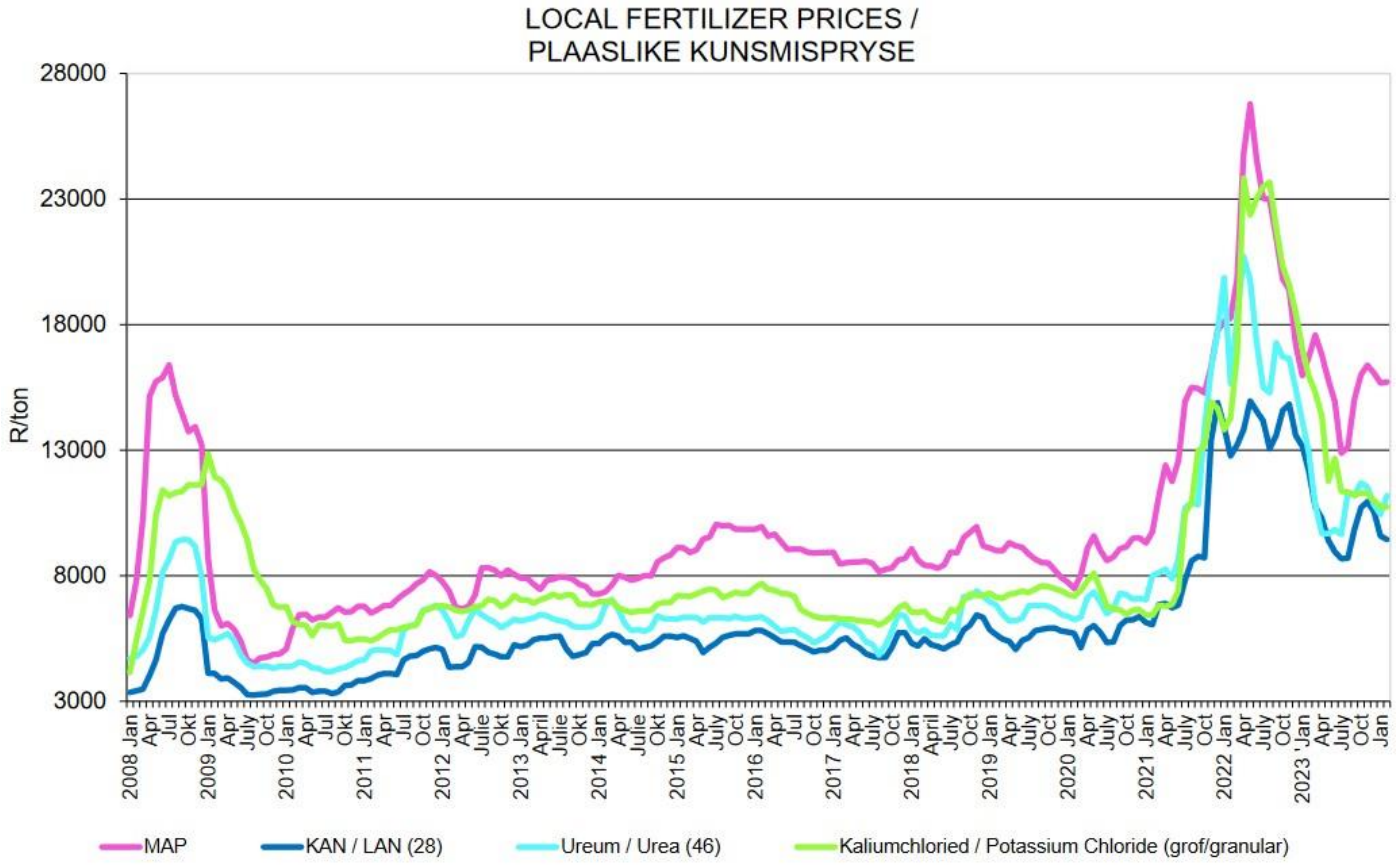
FERTILIZER PRICES IN SOUTH AFRICA IN JANUARY 2024 AND FEBRUARY 2024

Fertilizer	January 2024 Rand / Ton	February 2024 Rand / Ton	Percentage change from January 2024 to February 2024
LAN (28)	9 584	9 444	-1.5
Urea (46)	10 445	11 197	7.2
MAP	15 677	15 711	0.2
KCL	10 747	10 741	-0.1

29 & 30) Table prepared by the Office of SAMPRO based on information published by Grain SA.

Graph 12[31)]

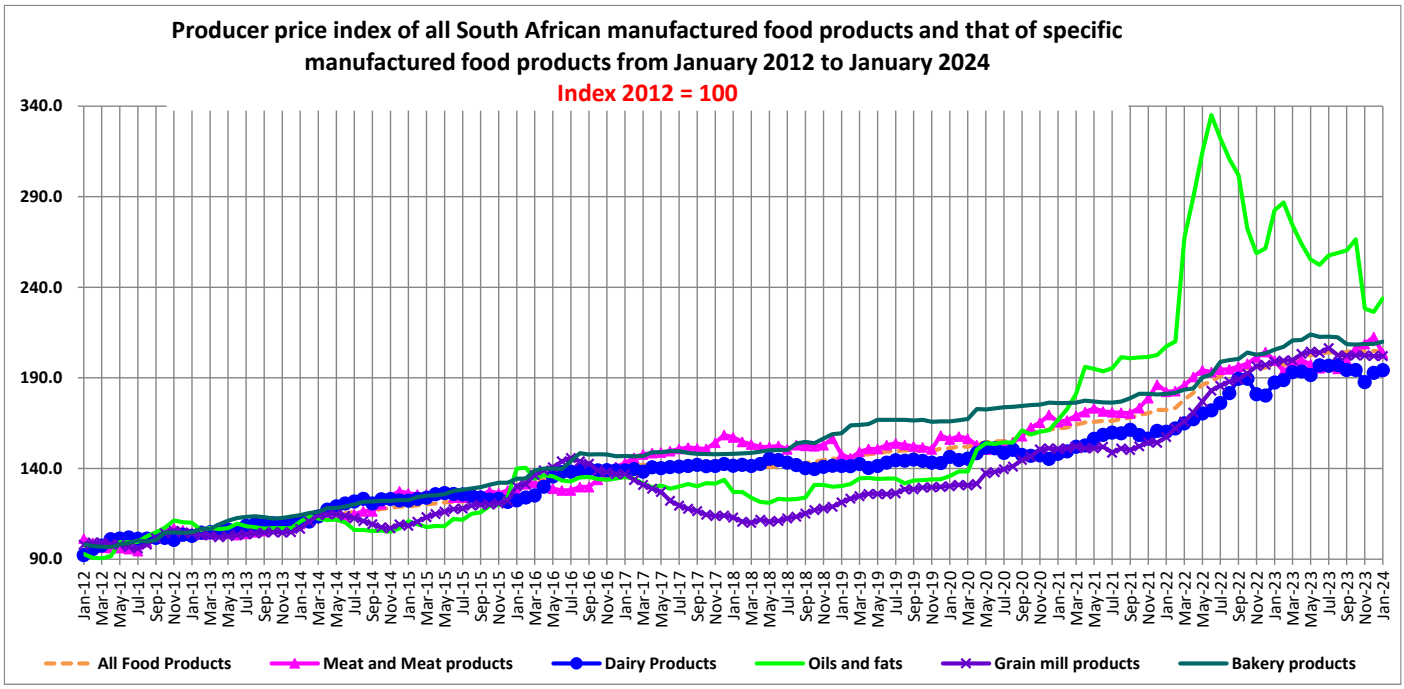
FERTILIZER PRICES IN SOUTH AFRICA FROM JANUARY 2008 TO FEBRUARY 2024



31) Graph published by Grain SA.

Graph 13[32)]

PRODUCER PRICE INDICES OF MANUFACTURED FOOD PRODUCTS IN SOUTH AFRICA FROM JANUARY 2012 TO JANUARY 2024



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32) Graph prepared by the Office of SAMPRO based on information obtained from Statistics SA.
Note that the producer price index of dairy products measures the changes of the prices of a basket of dairy products consisting of fresh milk, UHT milk, yoghurt, cheddar cheese and ice cream and products like cheese other than cheddar, maas, butter and milk powder are not included.

Table 18[33)]
MONTHLY INCREASE IN THE PRODUCER PRICE INDEX OF DAIRY PRODUCTS

	Percentage increase
April 2020 relative to March 2020	2.06
May 2020 relative to April 2020	2.09
June 2020 relative to May 2020	-0.26
July 2020 relative to June 2020	-1.72
August 2020 relative to July 2020	1.14
September 2020 relative to August 2020	-1.86
October 2020 relative to September 2020	-0.27
November 2020 relative to October 2020	0.14
December 2020 relative to November 2020	-1.36
January 2021 relative to December 2020	2.00
February 2021 relative to January 2021	0.88
March 2021 relative to February 2021	1.74
April 2021 relative to March 2021	0.46
May 2021 relative to April 2021	2.36
June 2021 relative to May 2021	1.41
July 2021 relative to June 2021	0.82
August 2021 relative to July 2021	-0.25
September 2021 relative to August 2021	1.19
October 2021 relative to September 2021	-1.80
November 2021 relative to October 2021	-1.20
December 2021 relative to November 2021	2.68
January 2022 relative to December 2021	-0.25
February 2022 relative to January 2022	1.12
March 2022 relative to February 2022	1.73
April 2022 relative to March 2022	1.39
May 2022 relative to April 2022	1.85
June 2022 relative to May 2022	1.00
July 2022 relative to June 2022	2.38
August 2022 relative to July 2022	3.06
September 2022 relative to August 2022	4.41
October 2022 relative to September 2022	0.00
November 2022 relative to October 2022	-4.48
December 2022 relative to November 2022	-0.44
January 2023 relative to December 2022	3.99
February 2023 relative to January 2023	0.69
March 2023 relative to February 2023	2.33
April 2023 relative to March 2023	0.21
May 2023 relative to April 2023	-1.03
June 2023 relative to May 2023	2.82
July 2023 relative to June 2023	-0.10
August 2023 relative to July 2023	0.15
September 2023 relative to August 2023	-1.32
October 2023 relative to September 2023	-0.05
November 2023 relative to October 2023	-3.40
December 2023 relative to November 2023	2.66
January 2024 relative to December 2023	0.78

33) Table prepared by the Office of SAMPRO based on information published by Statistics SA

Table 19[34)]

INCREASE IN PRODUCER PRICE INDICES OF PARTICULAR CATEGORIES OF PRODUCTS WHICH INCLUDE INPUTS OF THE DAIRY INDUSTRY, IN THE YEAR WHICH ENDED IN SEPTEMBER 2023 AND THE YEAR WHICH ENDED IN JANUARY 2024

GROUP OF PRODUCTS	Percentage increase in the year which ended in September 2023	Percentage increase in the year which ended in January 2024
Textiles, clothing and footwear	***7.1***	***9.1***
Textiles	**10.4**	**15.2**
Clothing	**5.2**	**6.4**
Footwear	**11.4**	**8.7**
Paper and printed products	***11.8***	***4.3***
Coke, petroleum, chemical, rubber and plastic products	***1.6***	***2.7***
Coal and petroleum products	**-0.2**	**0.9**
Petrol	**4.6**	**3.3**
Diesel	**-3.9**	**-3.3**
Other	**-0.5**	**3.5**
Chemical products	**4.9**	**4.8**
Rubber and plastic products	**3.6**	**5.2**
Metals, machinery, equipment and computing equipment	***6.5***	***5.8***
Structural and fabricated metal products	**2.9**	**5.0**
General and special purpose machinery	**10.6**	**6.9**
Household appliances and office machinery	**3.3**	**6.8**
Electrical machinery and communication and metering equipment	***5.6***	***3.0***
Electricity and water	***16.4***	***16.8***
Electricity	**17.7**	**18.3**
Water	**8.6**	**8.6**

34) **Table prepared by the Office of SAMPRO based on information published by Statistics SA**

Table 20[35)]

CHANGES IN THE RETAIL SALES QUANTITIES FROM THE YEAR JANUARY 2022 TO DECEMBER 2022, TO THE YEAR JANUARY 2023 TO DECEMBER 2023 AND CHANGES IN THE RETAIL PRICES FROM DECEMBER 2022 TO DECEMBER 2023 OF SPECIFIC DAIRY PRODUCTS

PRODUCT	CHANGE IN RETAIL SALES QUANTITY PERCENT	CHANGE IN RETAIL PRICES PERCENT
FRESH MILK	-5.9	11.5
LONG LIFE MILK (UHT MILK)	-4.3	12.0
FLAVOURED MILK	-8.7	5.8
YOGHURT	-7.1	7.9
MAAS	-5.1	13.6
PRE-PACKAGED CHEESE	-0.6	11.3
BUTTER	-4.3	1.3
CREAM	-1.9	9.6

*35) Table prepared by the Office of SAMPRO based on the results of surveys by "*NielsenIQ*". Non-retail sales such as sales to industrial buyers are not part of the surveys.*

Table 21[36)]

CHANGES IN THE QUANTITIES OF RETAIL SALES OF SPECIFIC DAIRY PRODUCTS IN THE PERIOD JANUARY 2022 TO DECEMBER 2023

PRODUCT	Sales in the month of December 2023 versus the sales in the month of December 2022	Sales in the 3 months from October to December 2023 versus the sales in the 3 months from October to December 2022	Sales in the 6 months from July to December 2023 versus the sales in the 6 months from July to December 2022	Sales in the 9 months from April to December 2023 versus the sales in the 9 months from April to December 2022	Sales in the 12 months from January to December 2023 versus the sales in the 12 months from January to December 2022
	percent	percent	percent	percent	percent
Fresh Milk	-4.5	-5.4	-5.9	-5.9	-5.9
UHT milk	-4.2	-2.7	-1.4	-2.6	-4.3
Flavoured milk	1.1	-3.4	-5.9	-7.8	-8.7
Yoghurt	0.2	-1.8	-4.5	-6.4	-7.1
Maas	5.3	0.9	-2.7	-4.8	-5.1
Pre-packaged cheese	1.3	0.04	-0.09	-0.03	-0.6
Butter	8.2	2.4	-0.5	-1.8	-4.3
Cream	1.3	0.1	-0.5	-1.4	-1.9

36) Table prepared by the Office of SAMPRO based on the results of surveys by "NielsenIQ". Non-retail sales such as sales to industrial buyers, are not part of the surveys.

Table 22[37)]

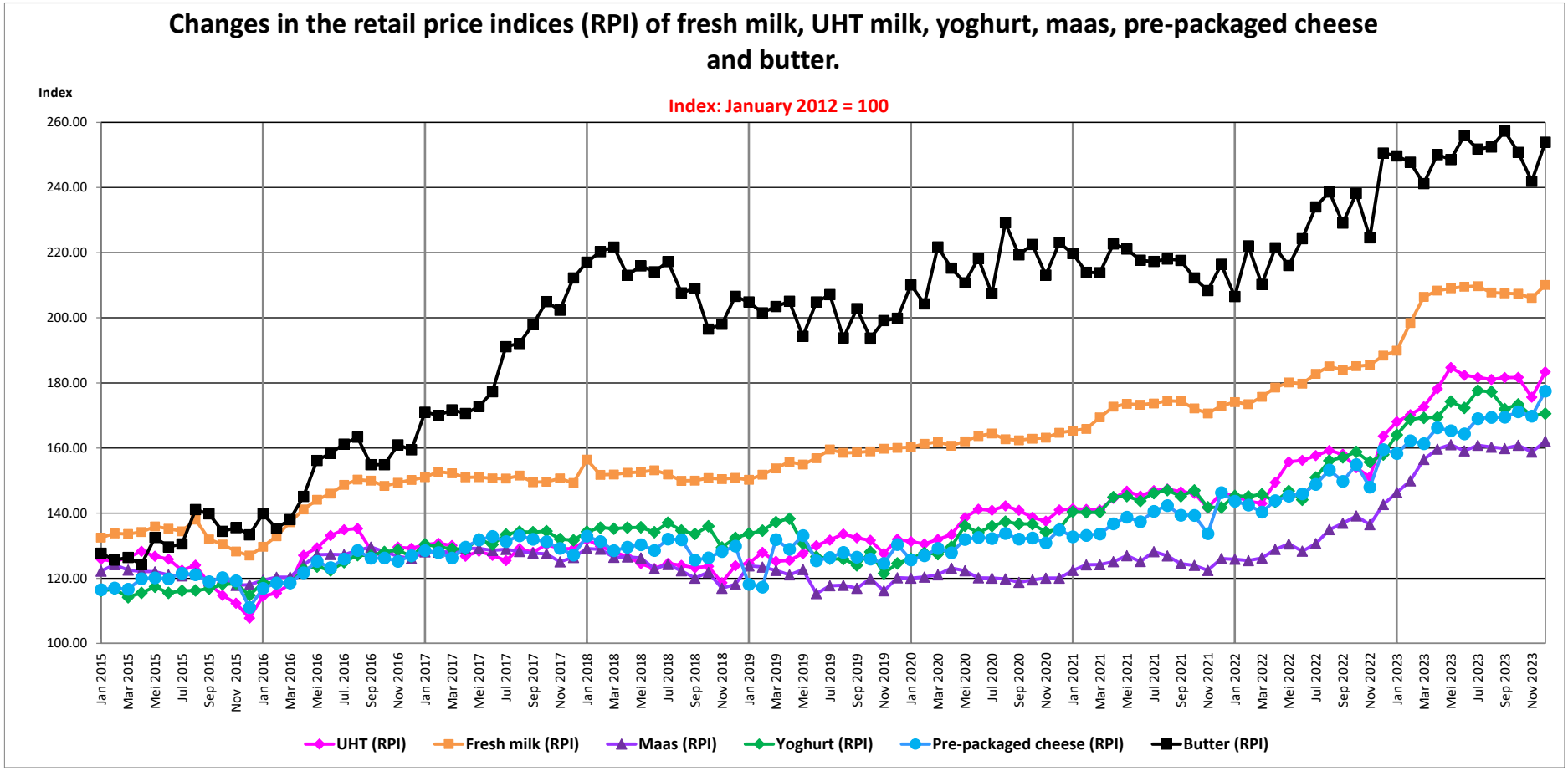
THE AVERAGE RETAIL PRICES OF SPECIFIC DAIRY PRODUCTS IN DECEMBER 2023, COMPARED TO THE AVERAGE RETAIL PRICES OF THE PRODUCTS CONCERNED IN SPECIFIC PREVIOUS MONTHS OF 2022 AND 2021

PRODUCT	December 2023 versus November 2023 (1 month ago)	December 2023 versus September 2023 (3 months ago)	December 2023 versus June 2023 (6 months ago)	December 2023 versus March 2023 (9 months ago)	December 2023 versus December 2022 (12 months ago)	December 2023 versus June 2021 (18 months ago)	December 2023 versus December 2021 (24 months ago)
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
FRESH MILK	1.9	1.2	0.2	1.8	11.5	16.8	21.5
UHT MILK	4.4	0.9	0.5	6.2	12.0	17.4	25.4
FLAVOURED MILK	1.7	-4.2	-3.5	-2.6	5.8	10.7	20.8
YOGHURT	0.4	-0.8	-1.0	0.8	7.9	18.3	20.3
MAAS	2.1	1.4	1.9	3.6	13.6	26.3	28.6
PRE-PACKAGED CHEESE	4.5	4.7	8.0	10.0	11.3	21.6	21.3
BUTTER	5.0	-1.3	-0.8	5.3	1.3	13.2	17.3
CREAM	3.1	3.2	2.2	5.2	9.6	16.0	18.7

37) Table prepared by the Office of SAMPRO based on the results of surveys by "NielsenIQ". Non-retail sales such as sales to industrial buyers, are not part of the surveys.

Graph 14[38)]

THE RETAIL PRICE INDICES (RPI) OF SPECIFIC DAIRY PRODUCTS, FROM JANUARY 2015 TO DECEMBER 2023



*38) Graph prepared by the Office of SAMPRO based on the results of surveys by "*NielsenIQ*". Non-retail sales such as sales to industrial buyers, are not part of the surveys.*

Table 23[39)]

THE HIGHEST AND LOWEST DIFFERENCES RECORDED BETWEEN THE AVERAGE MONTHLY RETAIL PRICES OF UHT MILK AND FRESH MILK AND THE DIFFERENCES BETWEEN THE AVERAGE ANNUAL RETAIL PRICES OF UHT MILK AND FRESH MILK, IN THE YEARS 2012 TO 2023

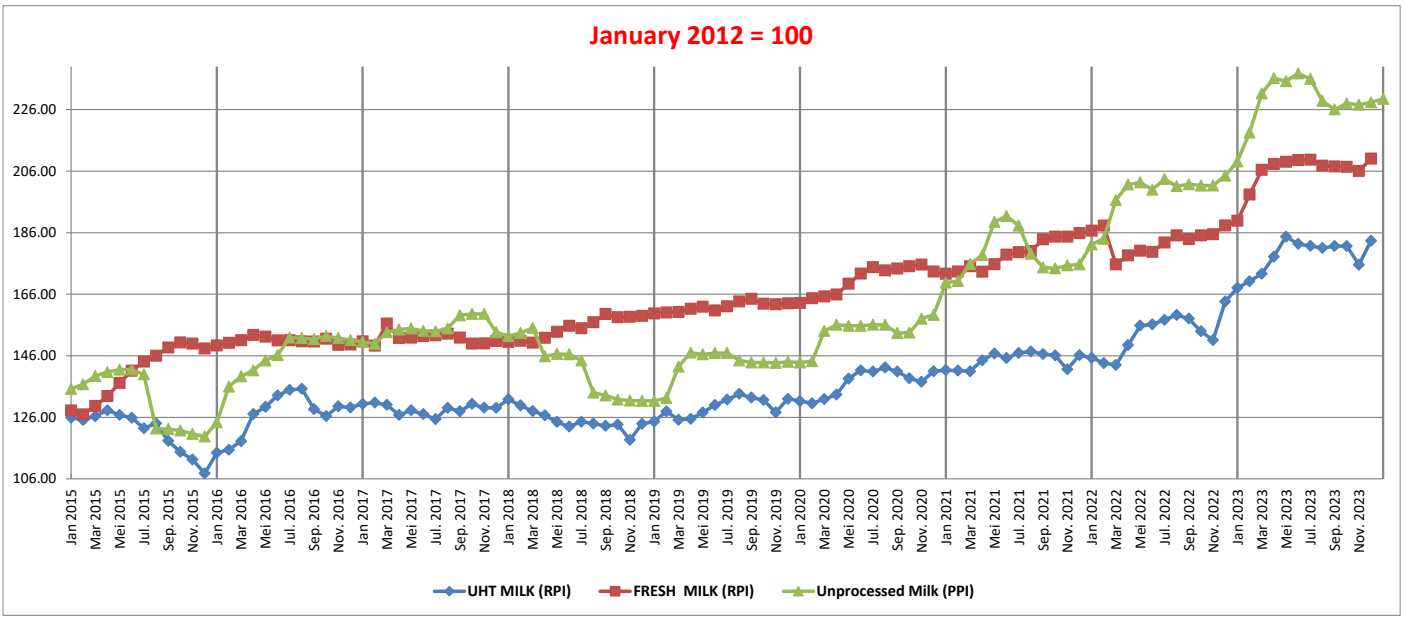
YEAR	Percentage difference [40)]		
	Highest monthly	Lowest monthly	Average annual
2012	17.1	0.7	11.4
2013	8.9	2.8	6.1
2014	12.5	5.8	10.0
2015	11.9	-0.7	7.0
2016	6.9	0.7	3.9
2017	1.8	-2.6	-0.2
2018	0.0	-7.9	-3.7
2019	3.8	-3.8	0.2
2020	4.3	0.4	2.3
2021	-3.8	-2.4	-3.1
2022	-0.4	-3.3	-1.9
2023	2.9	3.6	3.3
Average	5.5	-0.6	2.9

39) *Table prepared by the Office of SAMPRO based on the results of surveys by* NielsenIQ.
Non-retail sales such as sales to industrial buyers are not part of the surveys.

40) *The percentages indicated are the percentages which the average retail prices of UHT milk were higher than that of fresh milk*

Graph 15[41)]

THE PRODUCER PRICE INDEX (PPI) OF UNPROCESSED MILK, FROM JANUARY 2015 TO JANUARY 2024 AND THE RETAIL PRICE INDICES (RPI) OF FRESH MILK AND UHT MILK, FROM JANUARY 2015 TO DECEMBER 2023



INCREASE IN THE QUANTITY OF UNPROCESSED MILK PURCHASES RELATIVE TO PREVIOUS YEAR (PERCENT)[42)]

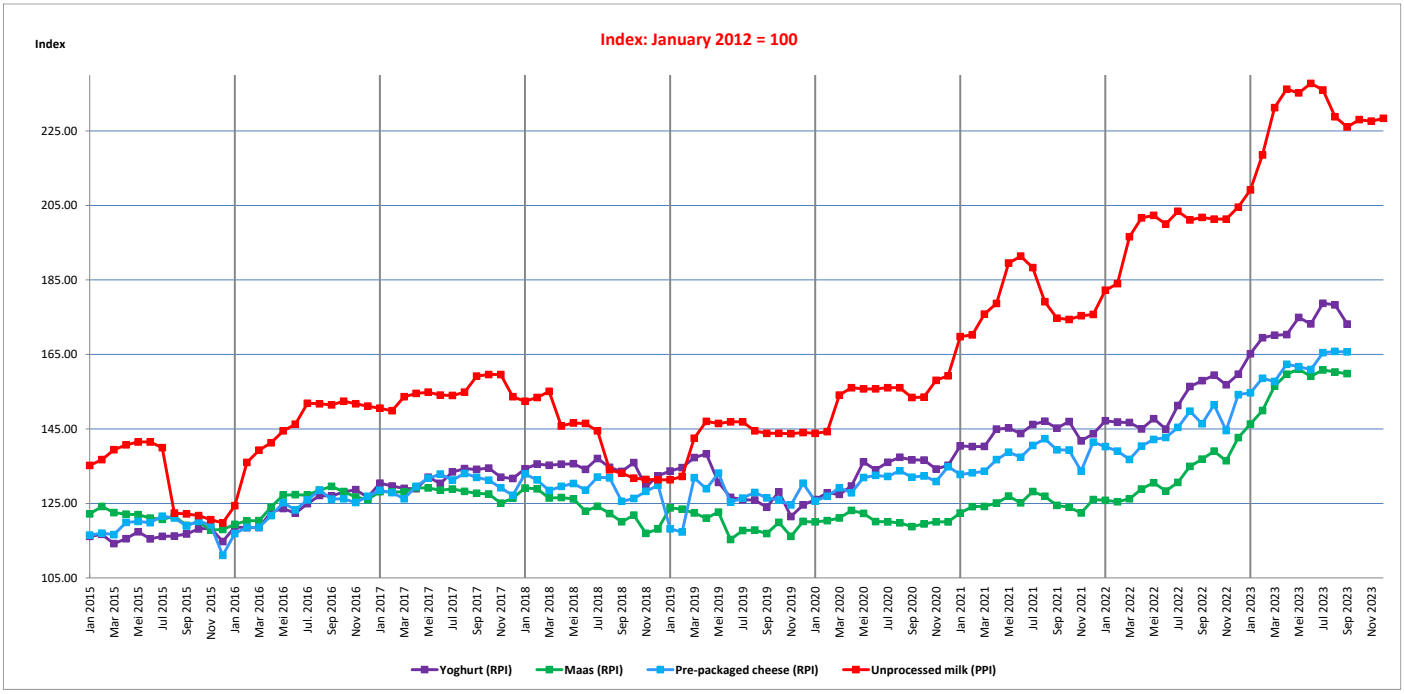
2015	2016	2017	2018	2019	2020	2021	2022	2023
6.37	-0.45	3.02	4.82	0.65	-0.16	-0.71	-1.56	-0.32

41) *Graph prepared by the Office of SAMPRO based on information obtained from* NielsenIQ *and Statistics South Africa*

42) *Table prepared by the Office of SAMPRO based on information obtained from Milk SA.*

Graph 16[43)]

THE PRODUCER PRICE INDEX (PPI) OF UNPROCESSED MILK, FROM JANUARY 2015 TO JANUARY 2024 AND THE RETAIL PRICE INDICES (RPI) OF YOGHURT, MAAS AND PRE-PACKAGED CHEESE, FROM JANUARY 2015 TO DECEMBER 2023



INCREASE IN THE QUANTITY OF UNPROCESSED MILK PURCHASES RELATIVE TO PREVIOUS YEAR (PERCENT)[44)]

2015	2016	2017	2018	2019	2020	2021	2022	2023
6.37	-0.45	3.02	4.82	0.65	-0.16	-0.71	-1.56	-0.32

43) Graph prepared by the Office of SAMPRO based on information obtained from NielsenIQ *and Statistics South Africa*

44) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.