# SUMMARY OF THE KEY MARKET SIGNALS FOR THE DAIRY INDUSTRY,
# AUGUST 2022 EDITION

CONTENTS PAGE

## *SYNOPSIS*

*The situation in the world changed dramatically at the end of February 2022, due to the invasion of Ukraine by Russia and the reactions of other countries to the invasion. These developments:*

- *Increased dramatically the level of uncertainty about future developments in the world; and*
- *Impacted negatively on economic growth in the world, prices of, amongst other, food and energy, international trade and trade relations between countries.*

*The duration and outcome of the conflict created by Russia is unknown, and escalation of the negative impact of the conflict on economic growth in the world, is possible. It is known that even when the conflict came to an end, some of the negative consequences of the conflict, will continue in the medium term and most likely also in the long term.*

*The price index for dairy products of the Food and Agricultural Organisation (FAO), which measures the price movements of a basket of dairy products in the international market, weakened by 4.46 percent from June 2022 to August 2022, but the index in August 2022, is 23.4 percent higher than in August 2021, 40.5 percent higher than in August 2020 and 43.0 percent higher than in August 2019.*

*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.*

*Eighteen months ago, namely 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".*

*The good performance of dairy products in the South African retail market in 2020, did not continue in 2021 and in the first half of 2022 (the latest available information is in respect of June 2022). In the year which ended in June 2022, the retail sales quantities of six of the nine dairy products, of which the retail sales are monitored, were from 0.7 to 7.7 percent lower than in the previous year, while the retail sales prices of the nine dairy products increased in the year which ended in June 2022, with 1.6 percent to 6.8 percent and these increases are lower than the inflation rate.*

## *SYNOPSIS (Continued)*

*The producer price index of dairy products as published by Statistics SA, fluctuates from month to month and:*

- *In the year which ended in December 2020, it increased by 1.6 percent;*
- *In the year which ended in December 2021, it increased by 10.7 percent; and*
- *In the first seven months of 2022, it increased by 9.5 percent.*

*According to Milk SA, the production of unprocessed milk (unprocessed milk purchases) in South Africa in 2020, was 0.16 percent lower than in 2019, 0.49 percent higher than in 2018 and 5.33 percent higher than in 2017. The marginal decrease from 2019 to 2020, was the result of lower production in eight of the twelve months of 2020.*

*The lower production of unprocessed milk in 2020 in South Africa, relative to the production in 2019, should be seen against the background of especially the following:*

- *The uncertainty about the impact of COVID-19 on the economy, as well as on the demand for dairy products and thus the demand for unprocessed milk, which existed in 2020. Essentially, this position discouraged at any point in time during 2020, optimistic views about the future demand for dairy products and the future demand for unprocessed milk, and thus the justification for the stimulation of production of unprocessed milk through price increases; and*
- *The unexpected sharp increases in the prices of maize and soya in the second half of 2020, which are the basis of important ingredients of feed for dairy cattle and which eroded the positive impact of the increase of the prices of unprocessed milk which took place.*

*The production in South Africa of unprocessed milk in 2021, was 0.71 percent lower than in 2020, 0.86 percent lower than in 2019 and 0.21 percent lower than in 2018. The decrease from 2020 to 2021, was due to lower production in seven of the first eight months of 2021. The production in the last four months of 2021, was respectively 1.3 percent, 1.9 percent, 2.8 percent and 1.4 percent higher than in the same months of 2020.*

*The lower production in South Africa of unprocessed milk in 2021, relative to the production in 2020, should be considered, taking into account:*

- *The retail sales quantities in 2021, of most dairy products, were lower than in 2020 and thus the demand for unprocessed milk for the production of these dairy products, was also lower; and*
- *The sharp rise in the prices of feed for dairy cattle in the second half of 2020 (See Graph 9 of Annexure A), of which the impact was limited by the increase in the price of unprocessed milk in the last quarter of 2020 and in the first half of 2021.*

## *SYNOPSIS (Continued)*

*The latest available information about the production of unprocessed milk in South Africa, indicates that the estimated production from January to July 2022, was 1.11 percent lower than in the same months of 2021, 3.65 percent lower than in the same months of 2020 and 3.59 percent lower than in the same months of 2019.*

*The lower estimated production of unprocessed milk in the first seven months of 2022, relative to the same months of 2021, is due to lower production in the five months from February to June 2022, as the production in January 2022 and the estimated production in July 2022, were respectively 2.2 percent and 0.4 percent higher than in the same months of 2021.*

*The production of unprocessed milk in South Africa and in other countries, is seasonal. In South Africa, the highest production per day occurs in October or November and the lowest in April, May or June. The average difference between the highest and lowest production per day in the thirteen years from 2008 to 2021, was 33.8 percent.*

*The extent of the seasonal decrease in the production of unprocessed milk in South Africa from October 2021 to June 2022, which is, according to the estimated figures of Milk SA, 30.6 percent, higher than the average decrease of 23.1 percent in the years 2008/2009 to 2020/2021, and also higher than the previous highest decrease of 26.2 percent, which was recorded in the period October 2019 to June 2020.*

*The extent of the seasonal increase in the production of unprocessed milk in South Africa, in the years 2008 to 2020, measured from July to October, varied from 24.2 percent to 34.3 percent, while the average increase in the years concerned, is 28.7 percent.*

*The producer price index of unprocessed milk, as published by Statistics SA, fluctuated from month to month and:*

- *In the year which ended in December 2020, it increased by 10.6 percent;*
- *In the year which ended in December 2021, it increased by 10.3 percent; and*
- *In the first seven months of 2022, it increased by 15.7 percent.*

*The relationship between the producer price index of unprocessed milk and the index of the feed price indicator (feed for dairy cattle), is an important indicator of the level of encouragement for the production of unprocessed milk.*

*From January 2022 to July 2022 (the latest available information is in respect of July 2022), the producer price index of unprocessed milk increased, but the index of the feed price indicator increased more, with the result that in April 2022, the index of the feed price indicator was, for the first time since January 2021, higher than the producer price index of unprocessed milk. In May 2022 to July 2022, the producer price index of unprocessed milk was higher than the index of the feed price indicator, but the extent to which it was higher, was much smaller than in most months of 2021.*

## *SYNOPSIS (Continued)*

*In light of the future prices of maize and soya, achieved in South Africa on 6 September 2022, indicate that a continuation of high prices for concentrated feed for dairy animals, should be expected.*

*In 2018, 2019, and 2020, the producer price index of unprocessed milk was at lower levels than the producer price index of dairy products, from January 2021 to August 2021 and in November 2021, it was on higher levels, but in September 2021, October 2021 and December 2021, it was lower. In January 2022 to July 2022, the producer price index of unprocessed milk was again higher than the producer price index of dairy products.*

*The producer price index of unprocessed milk was, in the seven years and six months from January 2015 to June 2022:*

- *With the exception of one month in 2015, higher than the retail price index of UHT milk;*
- *Moved in 2015, 2016 and 2017, close to the retail price index of fresh milk, in nine months of 2018, in 2019 and in 2020 it was lower, in the first eight months of 2021 it was higher, in September 2021 to December 2021, it was more or less on the same level as the retail price index of fresh milk, and in January to June 2022, the producer price index of unprocessed milk was higher than the retail price index;*
- *Higher than the retail price indices of pre-packaged cheese and maas; and*
- *With the exception of the period August 2018 to September 2018 and in the period November 2018 to February 2019, higher than the retail price index of yoghurt.*

*The South African primary and secondary dairy industries, like many other industries, experienced sudden and unexpected increases in the prices of important inputs like, fertilizer, chemicals, packaging materials, electricity, fuel and capital equipment. Some of these price increases are the result of developments in the international market, while others are linked to events in South Africa, like the damages caused by the riots in July 2021, and flooding in KZN in 2022, as well as poor service delivery by the public sector in respect of, for example, electricity, water and security. This position puts the South African dairy industry (primary and secondary) under severe pressure.*

## *SYNOPSIS (Continued)*

*The factual position which the South African dairy industry is confronted with, as shown by the information available up to the first week of September 2022, corresponds with the factual position described in the May 2022 edition of "Summary of the Key Market Signals for the Dairy Industry", namely:*

- *High levels of uncertainty about future economic growth and political developments internationally and in South Africa;*
- *Consumer purchasing power eroded by the increases of administrated and other prices and slow economic growth. Only in the first quarter of 2022, the South African Gross Domestic Product (GDP) reached a level higher than in the pre-Covid era, namely 2019, but in the second quarter of 2022, the GDP decreased to a level marginally lower (0.3 percent) than in 2019 and to approximately the same level as in 2018 (0.02 percent lower). The World Bank indicated in June 2022, that it expects that the South African economy will grow with 2.1 percent in 2022 and 1.5 percent in 2023. Due to recent developments, including load shedding, the expectation of the World Bank about growth in 2022, should be regarded as optimistic;*
- *Weak demand for most dairy products in terms of quantity, notwithstanding retail price increases in respect of dairy products, lower than the inflation rate;*
- *Lower production of unprocessed milk in the first seven months of 2022, than in the first seven months of 2019, 2020 and 2021 and an unfavourable relationship between the index of the feed price indicator and the producer price index of unprocessed milk;*
- *The seasonal increase in the production of unprocessed milk, measured from July to October, which varied in the thirteen years from 2008 to 2020, from 24.2 percent to 34.3 percent, while the average seasonal increase in the thirteen years concerned, is 28.7 percent; and*
- *High input cost.*

**Simply said**, the South African dairy industry is under severe pressure and in the immediate future, high input costs, weak consumer demand and a high level of uncertainty regarding future economic and political developments internationally and in South Africa, will most likely be the position in which the South African dairy industry will have to operate.

## 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 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 the 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, reputation of brand name, exposure to foreign competition, geographical location, as well as productivity in respect of the collection of unprocessed milk, processing, manufacturing and marketing.

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 each of the industries 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 the first week of September 2022. The situation in the world, changed dramatically at the end of February 2022, due to the invasion of Ukraine by Russia and the reactions of different countries to the invasion. The duration and the outcome of the conflict is unknown and escalation of the negative impact of the conflict on economic growth in the world, is possible. It is known that:

   - Thus far, the invasion and actions of countries to the invasion, impacted significantly negatively on economic growth in the world, inflation, international trade and the trade relations between major countries;

- The negative impact will continue in at least the medium term and most likely in the next decade; and that it
- Increased to a very high extent, the uncertainty regarding future economic growth in the world, international trade and trade relations between countries.

## 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 the 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 movement of the FAO Price Index for dairy products in the last three years and in the first eight months of 2022, can be summarised as follows:

- In 2019, the highest monthly index figure of 106.6, exceeded the lowest index figure of 99.6 with 7.0 percent. The index figure in December 2019 of 103.5, was 2.6 percent higher than the index figure of 100.9 in January 2019;
- In 2020, the highest monthly index figure of 109.2, exceeded the lowest index figure of 94.4 with 15.6 percent. The index figure in December 2020 of 109.2, was 5.2 percent higher than the index figure of 103.8 in January 2020;
- In 2021, the highest monthly index figure of 129.0, exceeded the lowest index figure of 111.2 with 16.0 percent. The index figure in December 2021, of 116.2 was 4.4 percent higher than the index figure of 111.2 in January 2021; and
- In 2022 (January to August) the highest index figure of 150.2, which was recorded in June 2022, exceeded the lowest of 132.6 which was recorded in January 2022, with 13.2 percent. From June 2022 to August 2022, the index figure decreased with 4.4 percent, to a level 8.2 percent higher than in January 2022.

***1) Food and Agricultural Organization of the United Nations.***

8. The views of the FAO regarding the decrease in the price index for dairy products from June 2022 to August 2022, are as follows:

> *"In August, international price quotations for butter and milk powders declined, principally due to weaker demand for spot supplies from most leading importers, as inventories remained adequate to cover their immediate needs. Market expectations for increased supplies from New Zealand in the new production season also weighed on international prices, notwithstanding milk production tracking lower in several key producing regions, including Western Europe and the United States of America. By contrast, world cheese prices increased for the tenth consecutive month, reflecting steady global import demand and robust internal sales, especially in European tourist destinations."*

9. The FAO Price Index for dairy products, in August 2022 of 143.5, is:

- 23.4 percent higher than in August 2021;
- 40.5 percent higher than in August 2020;
- 43.0 percent higher than in August 2019;
- 32.2 percent higher than in August 2018; and
- 8.3 percent lower than the record high index of 156.5 percent recorded in December 2013.

10. In 2021, the FAO price index for dairy products was lower than the FAO price indices for "cereals", and "vegetable oils". As important inputs for the production of unprocessed milk originate from the grain and vegetable oils industries, this position created less encouragement for the production of unprocessed milk. From May 2022, the extent to which the FAO price index for cereals is higher than that of dairy products decreased and in July 2022 and August 2022, these two indices were on the same level. (See Graph 2 of Annexure A).

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

12. In the last twenty-two years (2000 to 2021) 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-two years from 2000 to 2021, was 26.0 percent. In January 2022 to August 2022, the highest monthly price index for dairy products, which was recorded in June 2022, exceeded the lowest index, which was recorded in January 2022, with 13.2 percent. (See Table 1 of Annexure A).

13. In the last ten years (2012 to 2021) 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. The low levels of volatility in 2018 of 14.7 percent, 7.0 percent in 2019, 15.7 percent in 2020, 16.0 percent in 2021 and 13.2 percent in 2022 (January to August), are indicative that in the recent years, the supply of and the demand for dairy products in the international market, remained in balance to a high extent, notwithstanding the different supply and demand situations in the years concerned. In other words, in the last four years and eight months, the supply of dairy products followed, to a meaningful extent, the demand for dairy products.

14. 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 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.

15. In August 2022, the price per ton of butter in the international market was the highest, followed by the prices of cheddar cheese, skimmed milk powder and whole milk powder. An important observation is that in February 2022 to April 2022 and in August 2022, the price of skimmed milk powder was higher than the price of whole milk powder while, with the exception of a few months, the opposite is true in respect of the seven years 2015 to 2021. (See Graph 3 of Annexure A).

16. 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 6 September 2022, for delivery in October 2022 to February 2023, are as follows:

- The price of whole milk powder increases from October 2022 to February 2023, to a level 4.3 percent higher than in June 2022;
- The price of skimmed milk powder moves sideways from October 2022 to February 2023, within a band of prices of which the highest was 2.4 percent higher than the lowest;
- The price of cheddar cheese decreases with 9.2 percent from October 2022 to November 2022. From November 2022 to February 2023, it moves sideways within a band of prices of which the highest was 4.8 percent higher than the lowest. The price in February 2023, is 6.6 percent lower than in October 2022, and
- The price of butter decreases with 2.8 percent from October 2022 to November 2022 and from November 2022 to February 2023, it moves sideways within a band of prices of which the highest was 1.1 percent higher than the lowest. (See Table 2 of Annexure A).

17. The expectation of the Department of Agriculture of the USA regarding future prices of dairy products in the USA, published on 18 August 2022, indicates in respect of cheddar cheese, butter and skimmed milk powder, downwards movements from the second quarter of 2022, to the second quarter of 2023. (See Graph 4 of Annexure A).

18. The level of uncertainty in respect of future international trade, including the future international trade in dairy products, created by the Russian invasion and the reaction of other countries to it, is the highest since the Second World War and it adds, to a dramatic extent, to the uncertainty which exists regarding the future impact of Covid-19 and future weather conditions.

19. Regarding the future development in respect of the international dairy industry, key messages of the report of the Food and Agricultural Organisation (FAO), titled "Food Outlook", June 2022, are as follows:

- *"World milk production in 2022 is forecast to reach 937 million tons, up 1 percent from 2021, which, if confirmed, would mark the consecutive annual growth slowdown";*

- *"By contrast, milk production levels are expected to drop in Europe, South America and Oceania due to declining dairy cattle numbers, rising costs of feed, mounting skilled labour shortages, and less-than desirable pasture quality"; and*

- *"World trade in dairy products is forecast at 88 million tonnes (milk equivalent) down 0.4 percent from the elevated trading volume registered in 2021".*

20. The performance of the dairy industry in the world, is influenced by the economic growth rate in the world. Regarding prospects in respect of economic growth in the world, the following is stated in the report of the OECD[2)] titled " Economic Outlook, June 2022" :

*"The world is set to pay a hefty price for Russia's war against Ukraine. A humanitarian crisis is unfolding before our eyes, leaving thousands dead, forcing millions of refugees to flee their homes and threatening an economic recovery that was underway after two years of the pandemic. As Russia and Ukraine are large commodity exporters, the war has sent energy and food prices soaring, making life much harder for many people across the world.*

*The extent to which growth will be lower and inflation higher will depend on how the war evolves, but it is clear the poorest will be hit hardest. The price of this war is high and will need to be shared.*

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***2) Organisation for Economic Corporation and Development***

*The global economy is set to weaken sharply in our projections. We estimate world growth to be 3% in 2022 – down from the 4½ per cent we projected last December – and 2¾ per cent in 2023. Inflation projections now stand at nearly 9% in OECD countries in 2022, twice what we were previously projecting. Elevated inflation across the globe is eroding households' real disposable income and living standards, and in turn lowering consumption. Uncertainty is deterring business investment and threatening to curb supply for years to come. At the same time, China's zero-Covid policy continues to weigh on the global outlook, lowering domestic growth and disrupting global supply chains.*

*With risks biased to the downside, the price of war could be even higher. The conflict is disrupting the distribution of basic food and energy, fuelling higher inflation everywhere and threatening low-income countries in particular. European economies are struggling to wean themselves off Russian fuel, but because alternative energy sources may not be easy to ramp up quickly, there is a risk of higher prices or even shortages. If the war escalates or becomes more protracted, the outlook would worsen, particularly for low-income countries and Europe."*

*(The underlined script is by the Office of SAMPRO)*

21. Unprocessed milk production in the world is seasonal, as production in the winter is lower than the production in the 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).

22. The prices of unprocessed milk in different member states of the European Union (EU), differ. In 2020, the average price of unprocessed milk in the EU was from March 2020, lower than in not only the same months of 2019, but from July 2020, also lower than the average price in 2018. In the first two months of 2021, the price of unprocessed milk was lower than in the same months of 2020, but from March 2021, it moved to higher levels than in 2018, 2019 and 2020. The average estimated price in the EU in July 2022 (the latest available information is in respect of July 2022), was 39.7 higher than in July 2021 (See Graph 6 of Annexure A). The movements of the price of unprocessed milk in the United States of America, in 2020 and 2021, were very volatile and the highest price exceeded the lowest, by approximately 52.0 percent. The price thus far in 2022, is much higher than in any of the months of the years, 2015 to 2021. In the last few months the price decreased, but it remained much higher than in the years 2015 to 2021. (See Graph 7 of Annexure A).

# The South African Markets for Dairy Products and Unprocessed Milk

23. Regarding the imports and exports of dairy products of South Africa in 2021, the information obtained from SARS showed the following:

- The mass of exports in 2021, was 9.2 percent higher than in 2020, and 13.2 percent higher than in 2019. The increase from 2020 to 2021, is the result of the increase in the mass of exports of four of the six types of dairy products namely, milk and cream (04.01), buttermilk and yoghurt (04.03), whey (04.04) and cheese (04.06);
- The average f.o.b. export price in 2021, of one of the six types of dairy products namely, butter (04.05) was lower than the average price in 2020, while the average f.o.b. export prices of milk and cream (04.01), concentrated milk (04.02), whey (04.04), buttermilk and yoghurt (04.03) and cheese (04.06), were higher;
- The mass of imports in 2021, was 24.8 percent higher than in 2020, and 0.03 percent higher than in 2019. This increase is the result of the increase in the mass of imports of two of the six types of dairy products namely, milk and cream (04.01) and cheese (04.06). The imports in 2021, of concentrated milk (04.02), buttermilk and yoghurt (04.03), whey (04.04) and butter (04.05), were lower than the imports in 2020;
- The average f.o.b. import prices of 2021, of one of the six types of dairy products, namely concentrated milk (04.02) was higher than in 2020, while the average f.o.b. import prices of the other five types of dairy products, were lower; and
- In 2021, South Africa was a net exporter of milk and cream (04.01) and buttermilk and yoghurt (04.03), and a net importer of the other four types of dairy products. (See Table 3 and Table 4 of Annexure A).

24. Regarding the estimated[3)] imports and exports in 2022, the following:

- The estimated mass of imports of dairy products in 2022, is 30.2 percent lower than in 2021, and 12.9 percent lower than in 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 (January to June) 2022, of five of the six different categories of dairy products, are higher than in 2021;

***3) The estimated total import and export quantities in 2022, were calculated on the assumption that the levels of import in the first six months of 2022, will be maintained during the rest of 2022. Estimates regarding future imports and exports based on historic import figures should be viewed with caution as the pattern of imports (distribution per month of total import and export during a year), in different years.***

- The estimated mass of exports of dairy products in 2022, is 4.7 percent lower than in 2021, and 4.0 percent higher than in 2020. The decrease from 2021 to 2022, is due to the decrease in exports of four of the six categories of dairy products;

- The average f.o.b. export prices in (January to June) 2022, of five of the six different categories of dairy products, were higher than in 2021;

- The estimated mass of imports and exports in 2022, show that South Africa is 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), buttermilk and yoghurt (04.03); and

- The exposure of the South African dairy industry to foreign competition (that is imports plus exports), is the lowest in the 11 years from 2012 to 2022 (See Table 3 and Table 4 of Annexure A).

25. 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 fourteen years, 2008 to 2021:

- The highest production per day per month was in October (twelve years), or November (two years);
- The lowest production per day per month was in April (three years), May (three years), or June (eight years); and
- The highest production per day per month was on average 33.8 percent higher than the lowest. The highest difference of 41.0 percent was recorded in 2021, the second highest of 39.5 percent was recorded in 2017, 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 of Annexure A).

26. The mass of the production of unprocessed milk in South Africa, which is indicative of the production of dairy products in South Africa, increased with an average annual growth rate of:

- 1.20 percent in the three years from 2008 to 2011;
- 3.12 percent in the three years from 2011 to 2014;
- 2.94 percent in the three years from 2014 to 2017;
- 1.75 percent in the three years, 2017 to 2020;
- 2.26 percent in the twelve years from 2008 to 2020; and
- 2.02 percent in the thirteen years from 2008 to 2021. (See Table 5 of Annexure A).

27. From 2008 to 2021, the total unprocessed milk purchases per annum in South Africa increased with 29.67 percent, but the pattern of production of unprocessed milk during each of the last twelve years (2009 to 2021), 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 6 and Table 7 of Annexure A.

28. The production of unprocessed milk in South Africa in 2018, was 4.82 percent higher than in 2017, and it was the result of the higher production in eleven of the twelve months of 2018. The increase of 4.82 percent from 2017 to 2018, was the second highest year-on-year increase recorded in the eleven years 2008 to 2018. The highest increase of 6.37 percent was recorded in 2015, the third highest of 4.81 percent was recorded in 2010, and the fourth highest of 4.50 percent, was recorded in 2012. (See Table 5 of Annexure A).

29. The production of unprocessed milk in South Africa in 2019, was 0.65 percent higher than the previous record high production that was recorded in 2018, and 5.5 percent higher than in 2017 (See Table 5 of Annexure A). The lower growth rate of production in 2019, is the result of lower production in five months, namely January, February, April, July and December. (See Table 8 of Annexure A).

30. The production of unprocessed milk in South Africa in 2020, was 0.16 percent lower than in 2019, 0.49 percent higher than in 2018, and 5.3 percent higher than in 2017. The decrease from 2019 to 2020, is the result of lower production in eight of the twelve months of 2020, but the production in October 2020 was higher than the production in October of the previous ten years. (See Graph 8 of Annexure A).

31. The lower production of unprocessed milk in 2020, relative to the production in 2019, should be seen against the background of, especially, the following:

- The uncertainty about the impact of COVID-19 on the demand for dairy products and thus the demand for unprocessed milk, which existed in 2020. Essentially, this position, at any point in time in 2020, discouraged optimistic views about the future demand for dairy products and the demand for unprocessed milk, and thus the justification for stimulation of production of unprocessed milk through price increases; and
- The unexpected sharp increases of the prices of maize and soya in the second half of 2020, which are the basis of important ingredients[4)] of feed for dairy cattle and which eroded the positive impact of the increase in the prices of unprocessed milk which occurred.

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***4) Hominy chop and meal originating from maize seed and soya oil cake meal. Other products, originating from grains other than maize meal and soya, are also used and can, to some extent, replace the products originating from maize and soya.***

32. The production in South Africa of unprocessed milk in 2021, was 0.71 percent lower than in 2020, due to lower production in seven of the first eight months of 2021. The lower production in South Africa of unprocessed milk in 2021, relative to the production in 2020, should be considered taking into account:

- The retail sales quantities in 2021, of most dairy products, were lower than in 2020, as a result of which the demand for unprocessed milk for the production of these dairy products, was also lower; and
- The sharp rise in the price of feed for dairy cattle in the second half of 2020 and in the second half of 2021 (See Graph 10 of Annexure A), of which the impact was limited by the increase in the price of unprocessed milk in the last quarter of 2020 and in the first half of 2021 (See Graph 9 and Graph 10 of Annexure A).

33. The estimated production of unprocessed milk in the first seven months of 2022 (the latest available information is in respect of July 2022), is lower than in the first seven months of 2021, due to the lower production in February 2022 to June 2022, as the production in January 2022 and in July 2022, was higher. The estimated production of unprocessed milk in the first seven months of 2022, is:

- 1.11 percent lower than in the same months of 2021;
- 3.65 percent lower than in the same months of 2020; and
- 3.59 percent lower than in the same months of 2019.

The lower estimated production of unprocessed milk in the first seven months of 2022, than in the same seven months of the previous three years, is largely the result of the unprecedented high increases of the prices of inputs (See Graph 10, Table 12, Table 13, Table 14, Table 15 and Graph 11 of Annexure A) and the low demand for unprocessed milk. The increase of the input prices, eroded the impact of the higher prices of unprocessed milk recorded in the first seven months of 2022 (See Graph 10 of Annexure A).

34. According to the estimated figures, the seasonal decrease in the production of unprocessed milk in South Africa from October 2021 to June 2022, was 30.6 percent, which is:

- Higher than the average decrease of 23.1 percent in the same periods of the previous thirteen years; and
- The highest in the thirteen years from 2008/2009 to 2020/2021 (See Table 9 of Annexure A). Note that the production in October 2021, was higher than in October of the previous years (See Graph 8 of Annexure A).

35. Regarding the seasonal increase in the production of unprocessed milk in South Africa:

- The increase from July 2020 to October 2020, of 31.9 percent, is higher than the average increase of 28.7 percent during the same periods in the thirteen years, 2008 to 2020, and it is the third highest increase recorded in the thirteen years, from 2008 to 2020; and
- The increase from July 2021 to October 2021, was 35.8 percent, which is the highest increase recorded during the same periods in the fourteen years, from 2008 to 2021. (See Table 10 of Annexure A).

36. In 2020, the producer price index of unprocessed milk, increased in nine months and decreases were recorded in three months. The net result of these price movements is that the price index of unprocessed milk in December 2020, was 10.57 percent higher than in December 2019. (See Table 11 and Graph 13 of Annexure A).

37. In 2021, the producer price index increased in eight months and decreased in four months. The net result of the changes, is that the price index in December 2021, was 10.3 percent higher than in December 2020.

38. From December 2021 to July 2022 (the latest available information is in respect of July 2022), the producer price index of unprocessed milk increased by 15.7 percent, to a level 8.0 percent higher than in July 2021, 30.3 percent higher than in July 2020, and 38.5 percent higher than in July 2019.

39. In 2021, the producer price index of unprocessed milk was, with the exception of September, October and December, higher than the producer price index of dairy products, and in January 2022 to July 2022, the producer price index of unprocessed milk (the latest available information is in respect of July 2022), was higher than that of dairy products. (See Graph 13 of Annexure A).

40. In the year which ended in July 2022, the producer price index of unprocessed milk increased by 8.0 percent and that of dairy products by 10.2 percent. In the two years which ended in July 2022, the producer price index of unprocessed milk increased with 30.3 percent and that of dairy products, with 18.6 percent.

41. In the first eight months of 2021, and in January to July 2022, the producer price index of unprocessed milk was below the producer price index of "cereals and other crops". (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 are the comparisons of the producer price index of unprocessed milk with the indices of the prices of yellow maize and soya and it shows the following:

- In 2019, and due to the price movements of unprocessed milk, yellow maize and soya, the level of encouragement for the production of unprocessed milk, was generally lower than in 2018. The flavourable downward movement of the price of maize in 2019, was offset by the increase in the price of soya, resulting in an increase in the index of the feed price indicator, and the feed price indicator is calculated as the sum of 70 percent of the maize price and 30 percent of the soya price (See Graph 10 of Annexure A);

- From the second quarter of 2020, the prices of maize and soya increased sharply. As a result, the index of the feed price indicator 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 feed price indicator. Due to further increases in the producer price index of unprocessed milk and decrease in the index of the feed price indicator, the extent to which the producer price index of unprocessed milk exceeded the index of the feed price indicator, 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 soya, the extent to which the producer price index of unprocessed milk exceeded the index of the feed price indicator, decreased sharply from July 2021 to December 2021; and

- From January 2022 to July 2022 (the latest available information is in respect of July 2022), the producer price index of unprocessed milk increased, but the feed price indicator increased more, with the result that in April 2022, the index of the feed price indicator was, for the first time since January 2021, higher than the producer price index of unprocessed milk. In May 2022 to July 2022, the producer price index of unprocessed milk was higher than the index of the feed price indicator, but the extent to which it was higher, is much smaller than in most months of 2021.

42. Regarding the future price movements of yellow maize and soya, the following:

- The prices of yellow maize achieved on Safex on 6 September 2022, for delivery in September 2022 to December 2022, are from 3.1 percent to 4.0 percent lower than the prices achieved on 31 May 2022, for delivery in the same months;
- The prices of yellow maize achieved on Safex on 6 September 2022, for delivery in September 2022 to December 2022, increased by 2.6 percent. (See Table 12 of Annexure A);
- The prices of soya achieved on Safex on 6 September 2022, for delivery in September 2022 to December 2022, are from 4.0 percent to 4.7 percent lower than the prices achieved on 31 May 2022 for delivery in the same months; and
- The prices of soya achieved on Safex on 6 September 2022, for delivery in September 2022 to December 2022, increased by 2.2 percent. (See Table 13 of Annexure A).

43. From the previous paragraph, it is clear that in the next few months, continuation of the high prices of concentrated feed for dairy animals, should be expected.

44. It should be noted that the relatively high prices of maize and soya, are not the result of low production in South Africa of these products, as it is the result of the prices in the international market.

45. The primary agricultural industry, including the primary dairy industry is confronted by unexpected and very high increases in the prices of inputs like fuel, electricity, chemicals and fertilizers which took place in the immediate past. As an example, the magnitude of the increases of the prices of fertilizers are indicated in Table 14, Table 15 and Graph 11 of Annexure A. These price increases in respect of inputs of the primary dairy industry, can discourage the production of unprocessed milk and other particular field crops, including maize for silage and pastures for dairy cattle. As indicated in paragraph 51, the agro-processing industry, including the secondary dairy industry and other industries, are also confronted by sharp increases in the prices of inputs. It is possible that the invasion of Ukraine by Russia and the sanctions in respect of Russia announced by other countries, will create further increases in the prices of, amongst other, inputs of the agricultural and agro-processing industries and in disruption of the supply of inputs.

46. 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.

47. In 2019, the producer price index of dairy products moved within a band of index figures of which the highest, which was recorded in September 2019, was 3.2 percent higher than the lowest, which was recorded in April 2019. The producer price index of dairy products in December 2019, was 0.98 percent higher than in December 2018, and 0.35 percent higher than in December 2017. (See Graph 12 and Graph 13 of Annexure A).

48. In 2020, the producer price index of dairy products decreased in six months and increased in seven months.

The net result of changes of the producer price index of dairy products in 2020, is that the producer price index in December 2020, was 1.6 percent higher than a year ago, namely December 2019.

49. In 2021, the producer price index of dairy products increased in nine months and decreased in three months. The net result of these changes is that the price index in December 2021, was 10.6 percent higher than in December 2020.

50. From December 2021 to July 2022 (the latest available information is in respect of July 2022), the producer price index of dairy products increased with 9.5 percent to a level of 10.2 percent higher than July 2021, 18.6 percent higher than July 2020, and 21.9 percent higher than in July 2019.

51. The agro-processing industry, including the secondary dairy industry and other industries, are confronted by unexpected and big increases in the prices of important inputs like fuel, electricity, packaging materials, chemicals and capital equipment. (See Table 16 and Table 17 of Annexure A). As is the case with the primary dairy industry, some of these price increases are the result of developments in the international market, while others are linked to events in South Africa, like the damages caused by the riots in July 2021, floods in KZN in 2022 and poor service delivery by the public sector in respect of, for example, electricity, water and security. The sharp rise in the prices also weaken the ability of consumers to purchase goods and services. The Russian invasion of Ukraine created additional price increases in respect of a wide range of products which impact negatively on industries and the consumer.

52. 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.

53. The key characteristics of the markets for the different dairy products differ. Changes in the prices of the different types of dairy products and the level of economic growth of South Africa and other factors, influence the quantities sold.

54. 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 were higher than in 2019, while the opposite was true in respect of fresh and flavoured milk.

55. 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 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".

56. Key observations in respect of the performance in the South African retail market of nine dairy products in the year which ended in June 2022 (the latest available information is up to June 2022), and which are shown in Table 18, Table 19, and Table 20 of Annexure A, are as follows:

a) In the year which ended in June 2022, the retail sales quantities of six of the nine dairy products were lower than in the previous year, while the opposite is true in respect of three dairy products. The changes in the retail sales quantities of the nine dairy products, were as follows:

- Fresh milk -7.7 percent;
- UHT milk 1.9 percent;
- Flavoured milk -0.7 percent;
- Yoghurt -5.5 percent;
- Maas -1.9 percent;
- Pre-packaged cheese 1.5 percent;
- Cream cheese -2.6 percent;
- Butter 0.7 percent; and
- Cream -5.0 percent.

b) In the six months which ended in June 2022, relative to the same six months of 2020/2021, the retail sales quantities of five of the nine dairy products, were lower, while the opposite is true in respect of four dairy products. The changes in the retail sales quantities of the nine dairy products, were as follows:

- Fresh milk -8.4 percent;
- UHT milk 2.8 percent;
- Flavoured milk -1.7 percent;
- Yoghurt -3.1 percent;
- Maas 0.4 percent;
- Pre-packaged cheese 2.2 percent;
- Cream cheese -1.6 percent;
- Butter 1.5 percent; and
- Cream -6.0 percent.

c) In the quarter which ended in June 2022, relative to the quarter which ended in March 2021, the retail sales quantities of five of the nine dairy products, were lower, while the opposite is true in respect of four dairy products. The changes in the retail sales quantities of the nine dairy products, were as follows:

- Fresh milk -7.8 percent;
- UHT milk 4.6 percent;
- Flavoured milk -0.5 percent;
- Yoghurt -2.5 percent;
- Maas -0.7 percent;
- Pre-packaged cheese 1.4 percent;
- Cream cheese 0.02 percent;
- Butter 4.1 percent; and
- Cream -4.3 percent.

d) The retail sales quantities in June 2022 of six of the nine dairy products, were lower than in June 2021, while the opposite is true in respect of three of the dairy products. The changes of the retail sales quantities were as follows:

- Fresh milk -8.4 percent;
- UHT milk 1.2 percent;
- Flavoured milk 3.7 percent;
- Yoghurt -4.0 percent;
- Maas 5.4 percent;
- Pre-packaged cheese -1.8 percent;
- Cream cheese -8.3 percent;
- Butter -6.8 percent; and
- Cream -6.9 percent.

e) In the year which ended in June 2022, the retail sales prices of the nine dairy products increased. The changes of the retail sales prices, were as follows:

- Fresh milk 4.1 percent;
- UHT milk 6.8 percent;
- Flavoured milk 4.9 percent;
- Yoghurt 2.6 percent;
- Maas 2.2 percent;
- Pre-packaged cheese 4.4 percent;
- Cream cheese 5.3 percent;
- Butter 1.6 percent; and
- Cream 6.7 percent.

The above mentioned price increases are lower than the inflation rate of 7.4 percent in the year which ended in June 2022.

f) In the six months which ended in June 2022, the retail sales prices of the nine dairy products increased. The increases of the retail sales prices, were as follows:

- Fresh milk 4.3 percent;
- UHT milk 7.8 percent;
- Flavoured milk 7.4 percent;
- Yoghurt 2.5 percent;
- Maas 2.3 percent;
- Pre-packaged cheese1.9 percent;
- Cream cheese 3.7 percent;
- Butter 3.4 percent; and
- Cream 3.2 percent.

g) In the quarter which ended in June 2022, the retail sales prices of the nine dairy products increased. The increases of the retail sales prices of the nine dairy products concerned, were as follows:

- Fresh milk 2.7 percent;
- UHT milk 8.7 percent;
- Flavoured milk 5.7 percent;
- Yoghurt 0.4 percent;
- Maas 2.3 percent;
- Pre-packaged cheese 5.0 percent;
- Cream cheese 4.4 percent;
- Butter 3.6 percent; and
- Cream 3.7 percent.

h) From May 2022 to June 2022, the retail sales prices of seven of the nine dairy products increased. The increases of the retail sales prices were as follows:

- Fresh milk 0.7 percent;
- UHT milk 2.4 percent;
- Flavoured milk 0.2 percent;
- Yoghurt -1.2 percent;
- Maas -1.2 percent;
- Pre-packaged cheese 1.5 percent;
- Cream cheese 5.9 percent;
- Butter 3.1 percent; and
- Cream 2.3 percent.

i) Regarding the difference between the average retail price per year of UHT milk and 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; and
- In 2021, the average retail price of UHT milk was 3.1 percent lower than that of fresh milk.

57. In general, the performance of dairy products described in the previous paragraph, shows that :

- In the year which ended in June 2022, the retail sales quantities of six of the nine dairy products were lower than in the previous year while the retail prices of the nine products increased with less than the official inflation rate; and
- In the quarter which ended in June 2022, the retail sales quantities of five of the nine dairy products, were lower than in the same quarter of the previous year, while retail prices of the nine dairy products increased.

58. The relative movements of the retail prices of particular dairy products in the seven years from 2015 to 2021 and in the first quarter of 2022, are shown in Graph 14 of Annexure A. This graph shows, amongst others, that:

- The retail price index of butter is, since the middle of 2016, much higher than the retail price indices of the other dairy products. The reason for this increase of 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 is, since the middle of 2016, lower than that of butter, but higher than the retail price indices of the other dairy products;
- In 2019, 2020 and in 2021, as well as in the first quarter of 2022, the retail price index of maas was notably lower than that of the other dairy products; and
- The retail price index of UHT milk fluctuated from time to time, more up and down during meaningful periods, than that of the other dairy products, excluding butter.

59. Regarding the relative movements of the price of unprocessed milk and the prices of the different dairy products[5)] 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; and
- 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.

60. 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 seven years, 2015 to 2021, as well as in the first half of 2022, against the background of the increase 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 that the magnitude of the changes of the prices concerned, differ;
- The retail price index of fresh milk is less volatile than the retail price index of UHT milk and the producer price index of unprocessed milk;
- From the second quarter of 2018 to December 2020, the retail price index of fresh milk was higher than the producer price index of unprocessed milk, from January 2021 to August 2021, the retail price index of fresh milk was lower than the producer price index of unprocessed milk, in September 2021 to December 2021, it was more or less on the same level, but from January 2022 to June 2022, the retail price index of fresh milk is lower than the producer price index of unprocessed milk;
- In the 90 months period from January 2015 to June 2022, 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 other, 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 the case in respect of fresh milk. Obviously, the supply of a product (including the supply of unprocessed milk), does not determine the price of the product, as prices are the result of the interaction between supply and demand. Production cost influences 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, change in production (supply), that is not in pace with the change in the demand, results in price movements.

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***5) 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 the other inputs, like packaging, electricity, fuel, water, capital and labour, is higher than the cost of the unprocessed milk delivered at dairy factories.***

61. The relative movements of the retail prices of yoghurt, maas and pre-packaged cheese, as well as the price of unprocessed milk, against the background of the increase 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 contributions 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[6)] instead of unprocessed milk, can be used to manufacture maas and yoghurt; and

- In the 90 months from January 2015 to March 2022, the price index of unprocessed milk was on higher levels as 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.

62. The factual position which the South African dairy industry is confronted with, as shown by the information available up to the first week of September 2022, corresponds with the factual position described in the May 2022 edition of "Summary of the Key Market Signals for the Dairy Industry", namely:

- High levels of uncertainty about future economic growth and political developments internationally and in South Africa;

- Consumer purchasing power eroded by the increases of administrated and other prices and slow economic growth. Only in the first quarter of 2022, the South African Gross Domestic Product (GDP) reached a level higher than in the pre-Covid era namely 2019, but in the second quarter of 2022, the GDP decreased to a level marginally lower (0.3 percent) than in 2019 and to approximately the same level as in 2018 (0.02 percent lower)[7)]. The World Bank indicated in June 2022, that it expects that the South African economy will grow with 2.1 percent in 2022 and 1.5 percent in 2023. Due to recent developments, including load shedding, the expectation of the World Bank about growth in 2022, should be regarded as optimistic;

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***6) 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".***

***7) SA Statistics, Statistical Release, P0441, Gross Domestic Product, Second quarter 2022.***

- Weak demand for most dairy products in terms of quantity, notwithstanding retail price increases in respect of dairy products, lower than the inflation rate;
- Lower production of unprocessed milk in the first seven months of 2022, than in the first seven months of 2019, 2020 and 2021 and an unfavourable relationship between the index of the feed price indicator and the producer price index of unprocessed milk;
- The seasonal increase in the production of unprocessed milk, measured from July to October, which varied in the thirteen years from 2008 to 2020, from 24.2 percent to 34.3 percent, while the average seasonal increase in the thirteen years concerned, is 28.7 percent; and
- High input cost.

63. **Simply said**, the South African dairy industry (primary and secondary) is under severe pressure and in the immediate future, high input costs, weak consumer demand and a high level of uncertainty regarding future economic and political developments internationally and in South Africa, will most likely be the position in which the South African dairy industry will have to operate.

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**CEO: SAMPRO**
**13 September 2022**


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|---|---|
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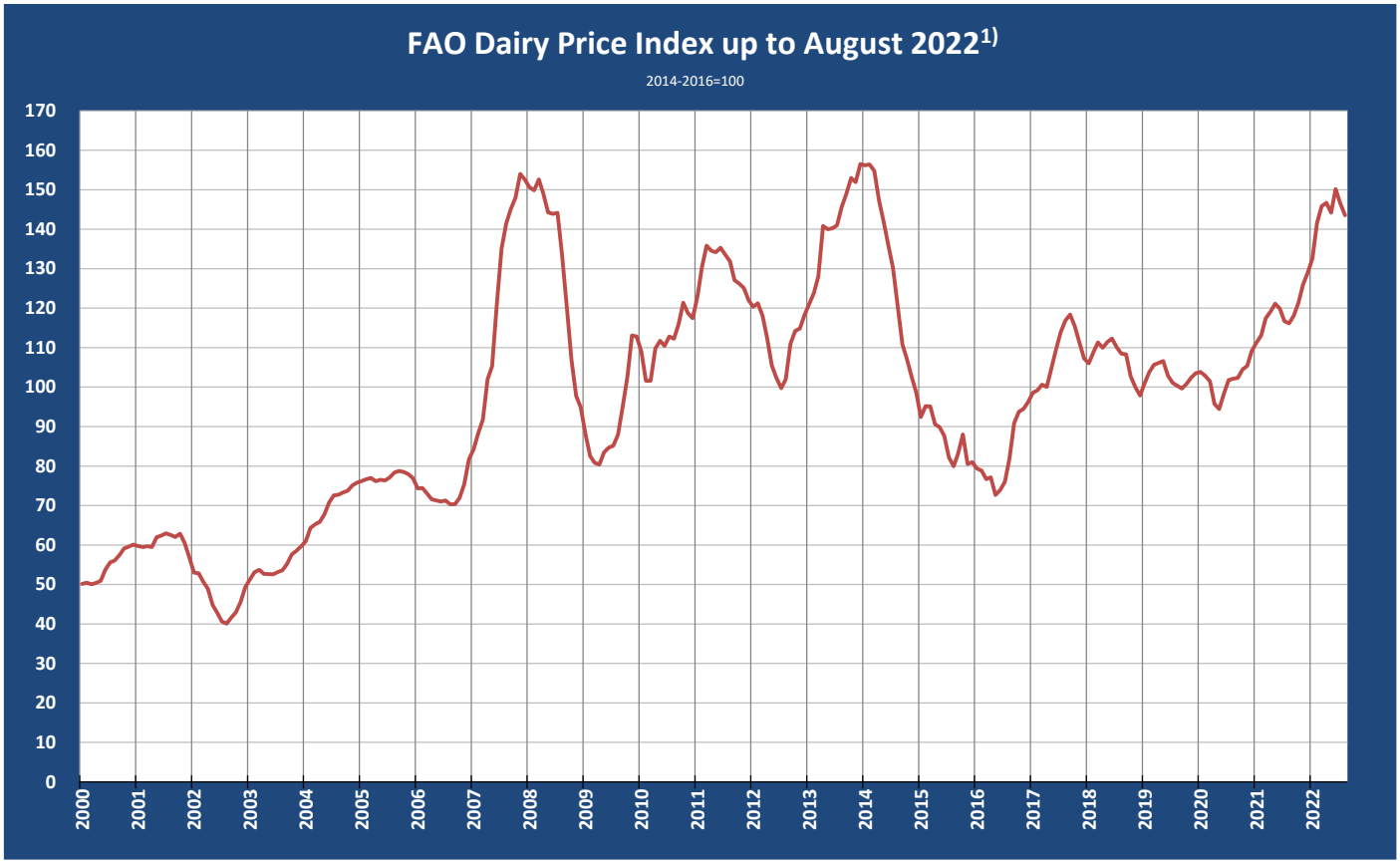
**Annexure A**

# C O N T E N T

**Graph 1[1)]**

**PRICE INDEX OF DAIRY PRODUCTS IN THE INTERNATIONAL MARKET UP TO AUGUST 2022, 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

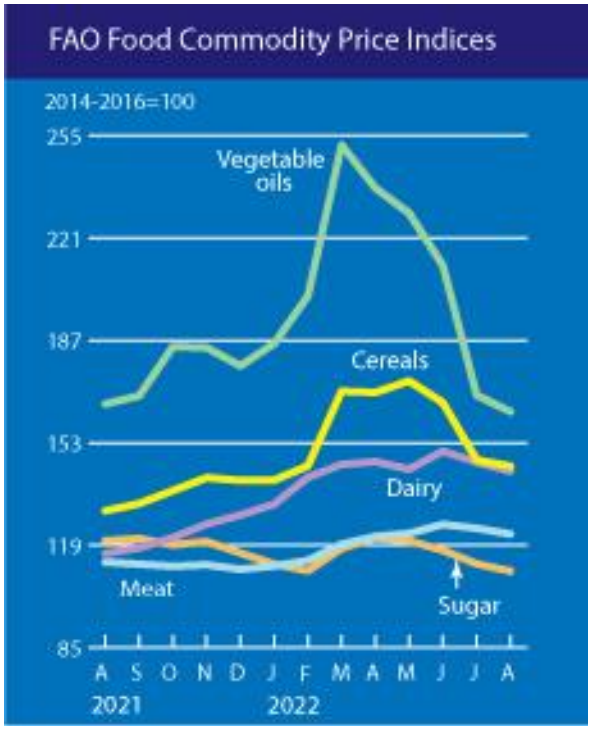
Index: 2014-2016=100

| 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 | 129.0 | 111.2 | 16.0 |
| Average | 106.8 | 84.7 | 26.0 |
| 2022 (Jan – Aug) | 150.2 | 132.6 | 13.2 |

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

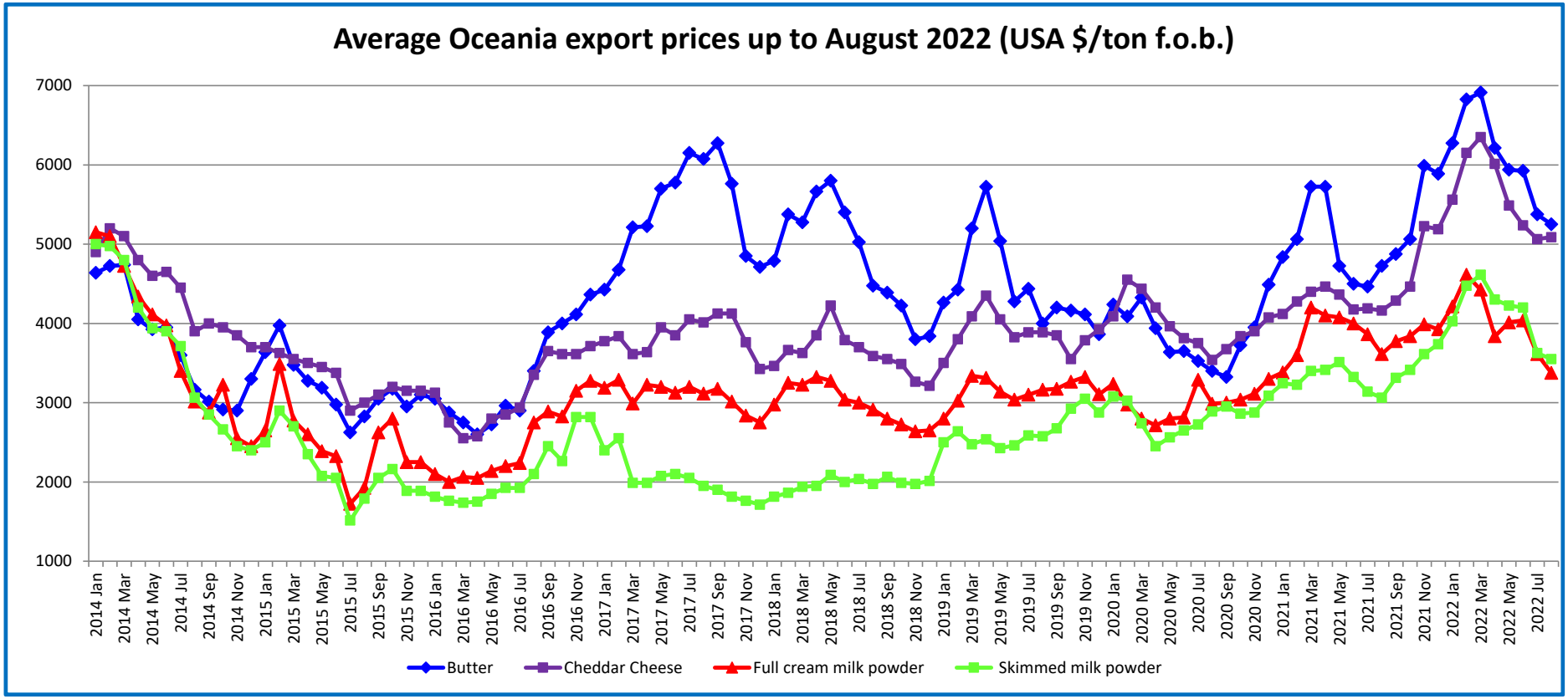
**Graph 2[3)]**

**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 6 September 2022.*

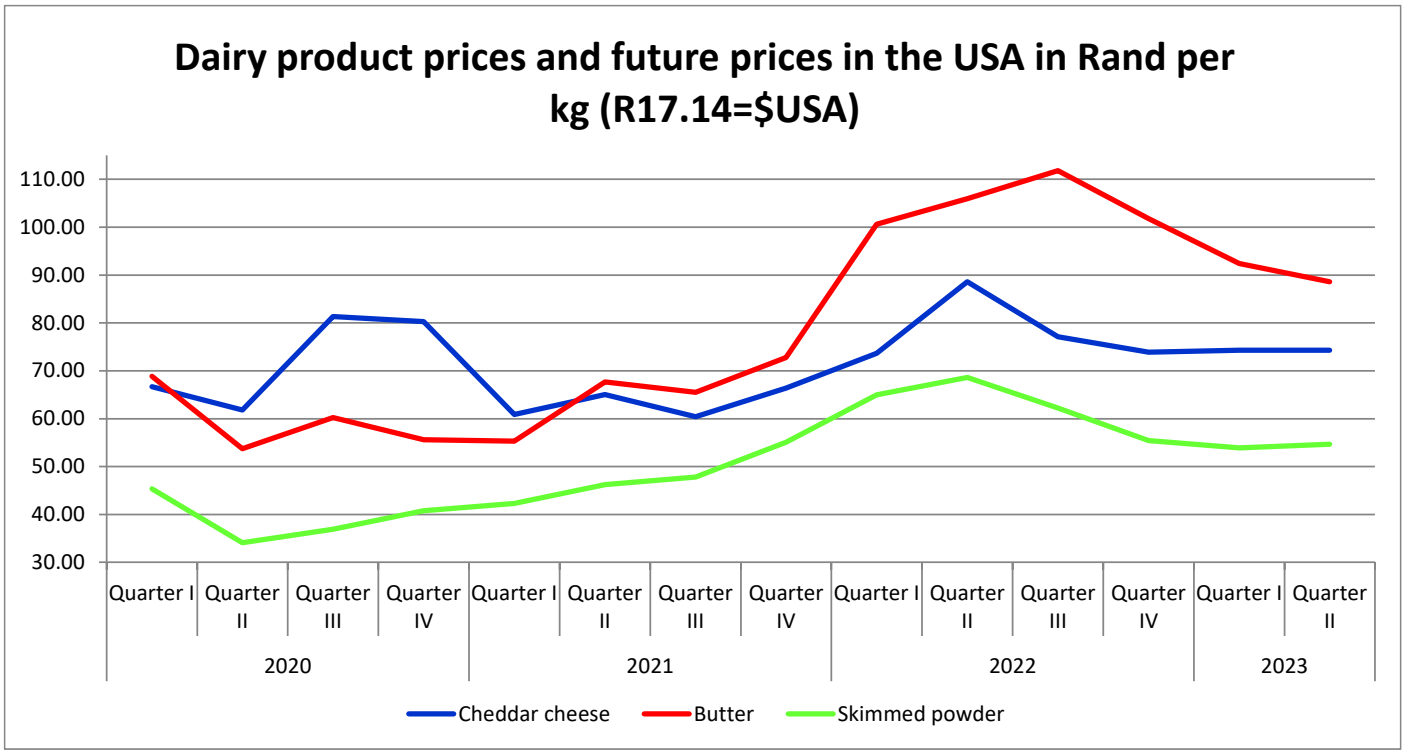
**Table 2[5)]**

**FUTURE PRICES IN USA$ AND RAND ($=R17.14) PER TON ACHIEVED AT GLOBAL DAIRY TRADE AUCTION ON 6 SEPTEMBER 2022, FOR DELIVERY IN OCTOBER 2022 TO FEBRUARY 2023**

| | Oct | Nov | Dec | Jan 2023 | Feb |
|---|---|---|---|---|---|
| Whole Milk Powder | | | | | |
| PRICE: $ | 3 544 | 3 591 | 3 635 | 3 650 | 3 697 |
| PRICE: R | 60 744 | 61 550 | 62 304 | 62 561 | 63 367 |
| Index | 100.0 | 101.3 | 102.6 | 103.0 | 104.3 |
| Skimmed Milk Powder | | | | | |
| PRICE: $ | 3 566 | 3 556 | 3 554 | 3 599 | 3 650 |
| PRICE: R | 61 121 | 60 950 | 60 916 | 61 687 | 62 561 |
| Index | 100.0 | 99.7 | 99.7 | 100.9 | 102.4 |
| Cheddar | | | | | |
| PRICE: $ | 5 510 | 5 002 | 4 943 | 4 955 | 5 143 |
| PRICE: R | 94 441 | 85 734 | 84 723 | 84 929 | 88 151 |
| Index | 100.0 | 90.8 | 89.7 | 89.9 | 93.3 |
| Butter | | | | | |
| PRICE: $ | 5 545 | 5 385 | 5 305 | 5 335 | 5 325 |
| PRICE: R | 95 041 | 92 299 | 90 928 | 91 442 | 91 271 |
| Index | 100.0 | 97.1 | 95.7 | 96.2 | 96.0 |

*5) Table prepared by the Office of SAMPRO based on the prices as published by "Global Dairy Trade" on 6 September 2022 and the index is based on the USA $ prices*

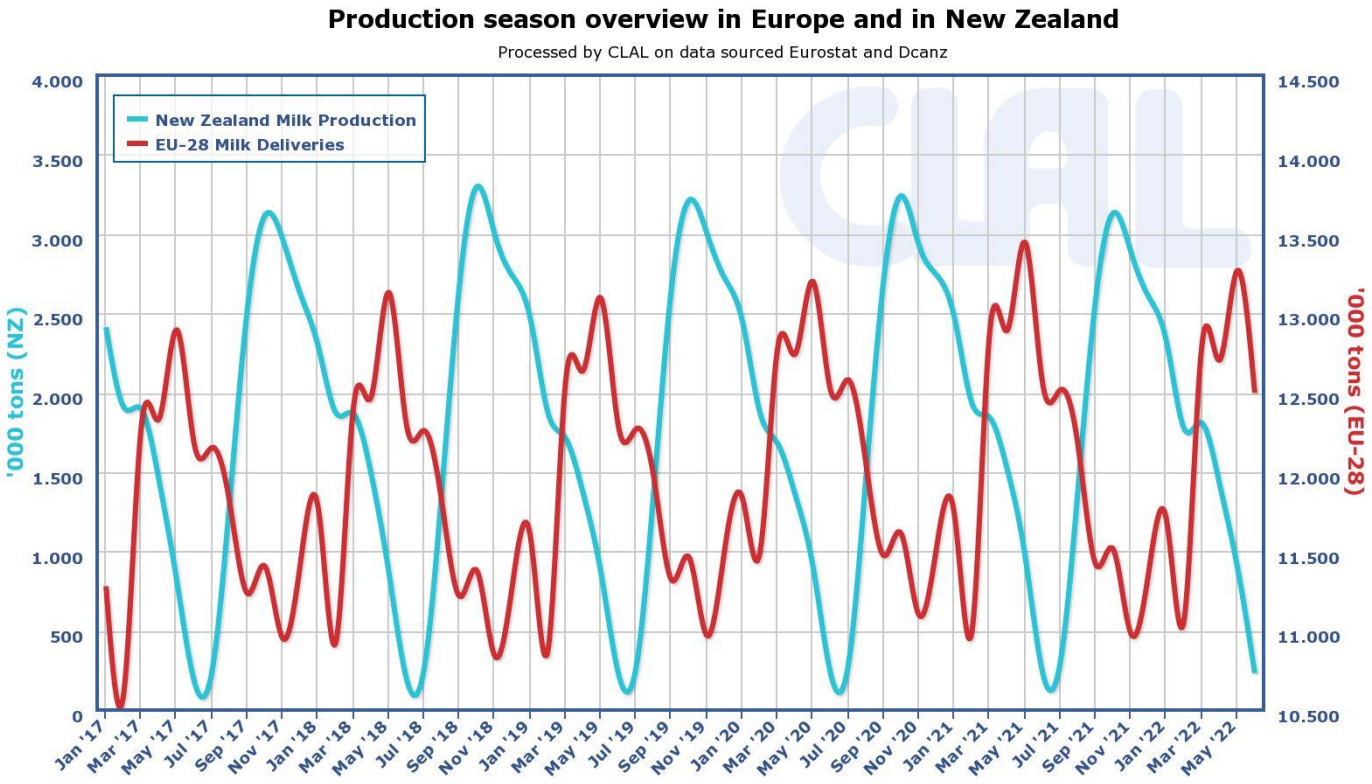
**Graph 4[6)]**




*6) Graph prepared by the Office of SAMPRO based on information contained in the United States Department of Agriculture, Livestock, Dairy, and Poultry Outlook, 18 August 2022*

## Graph 5[7)]

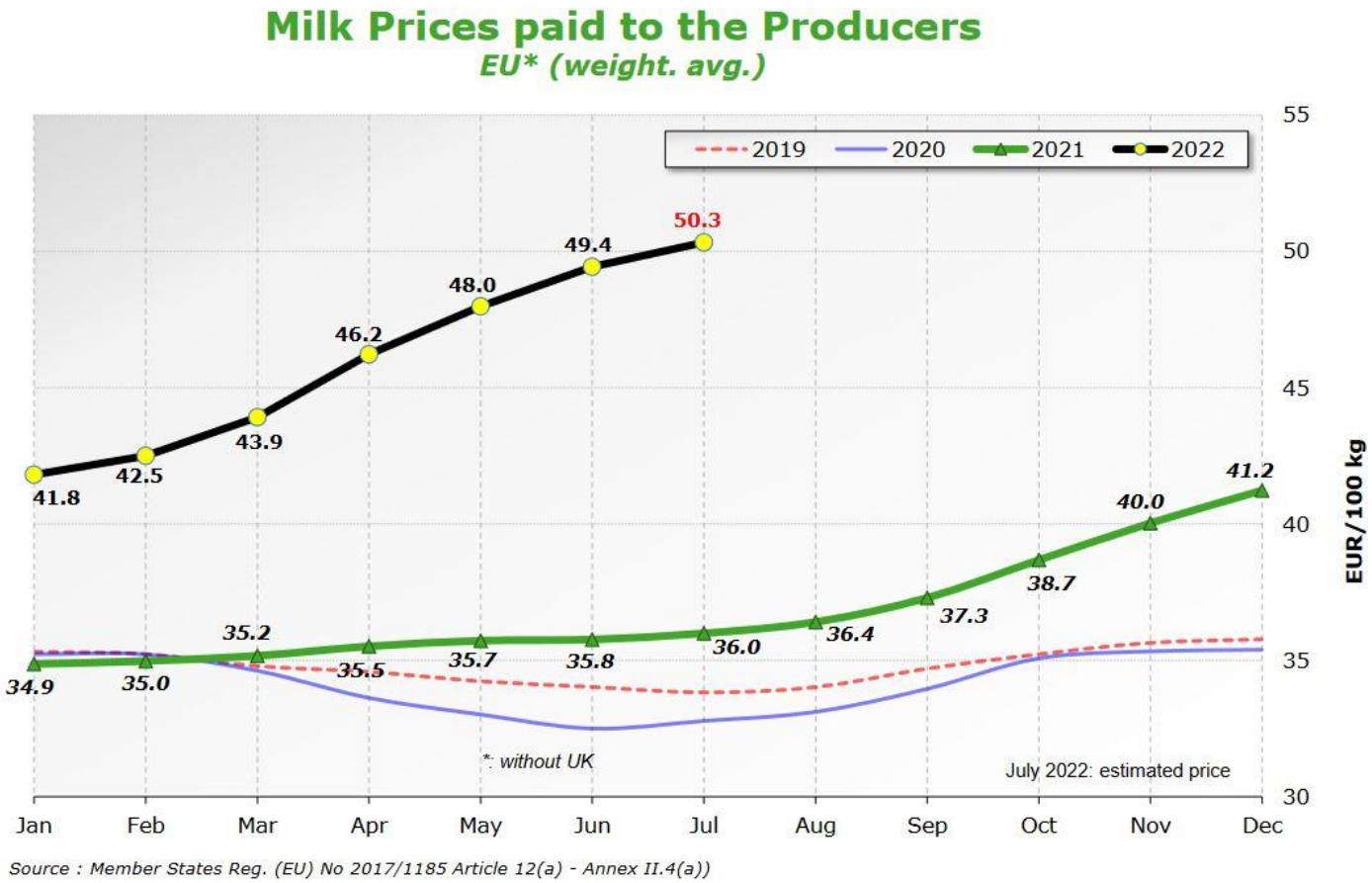
### SEASONALITY OF UNPROCESSED MILK PRODUCTION IN THE NORTHERN AND SOUTHERN HEMISPHERES




*7) Graph as published by CLAL.it*

**Graph 6[8)]**

**AVERAGE PRICE OF UNPROCESSED MILK IN THE EUROPEAN UNION**

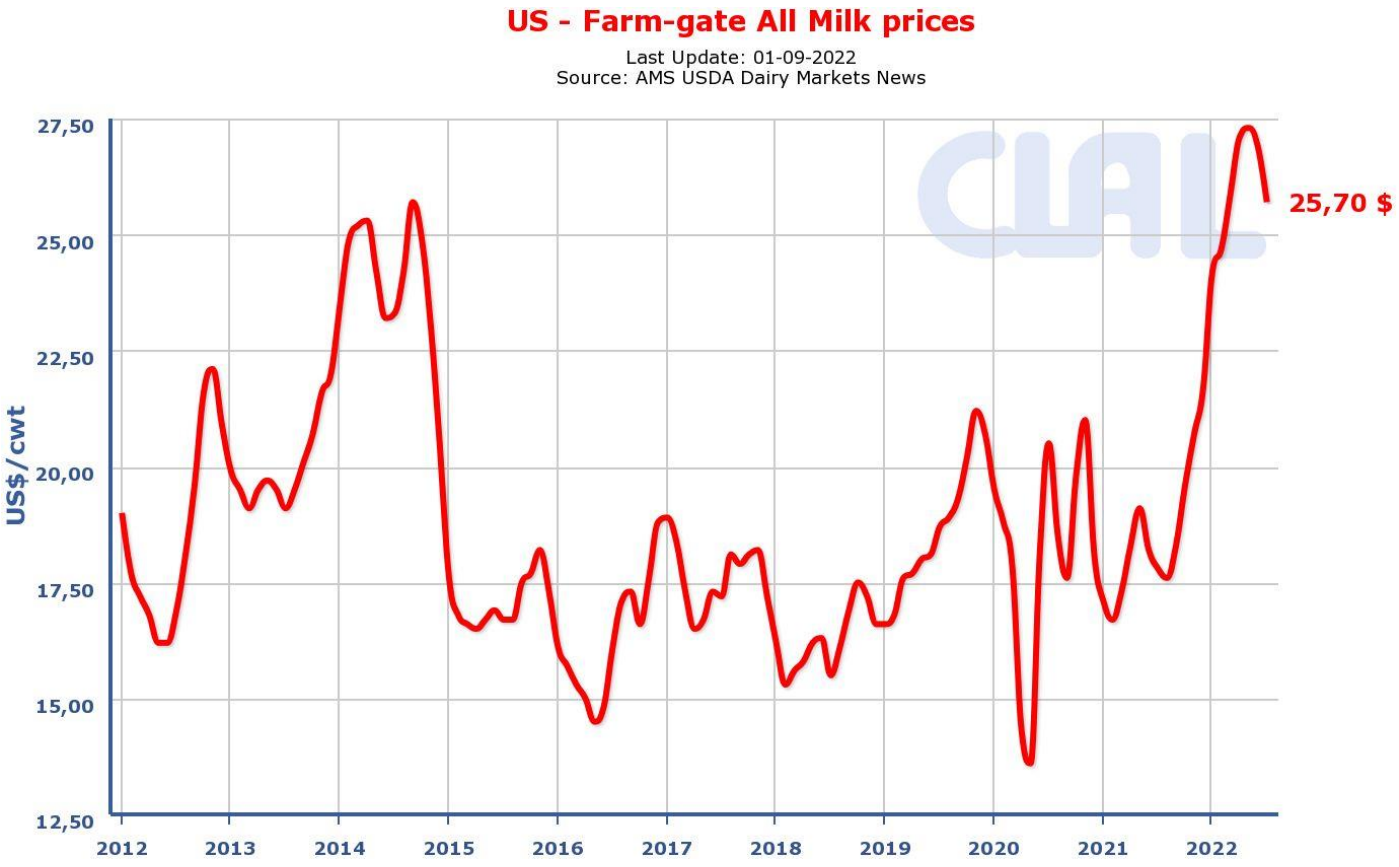



*Source : Member States Reg. (EU) No 2017/1185 Article 12(a) - Annex II.4(a))*

*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 2022**

**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 | 59 012.55 | 239.7 | 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 Est | 52 749.66 | 214.3 | 48 586.49 | 141.5 | 101 336.15 | 171.9 |

*10) Table prepared by the Office of SAMPRO on the basis of information obtained from SARS and the estimated figures calculated on the basis of the assumption that the levels of import and export in the first 6 months of 2022, will be maintained during the rest of 2022.*

**Table 4[11)]**

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

| Heading | Description | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 Est |
|---|---|---|---|---|---|---|---|---|---|---|
| 04.01 | Milk and cream, unsweetened | 21.4 | 92.5 | 84.3 | 217.1 | 103.7 | 90.2 | 26.4 | 95.2 | 17.8 |
| 04.02 | Milk, concentrated | 117.3 | 197.7 | 196.3 | 146.4 | 159.5 | 227.9 | 252.8 | 257.6 | 147.6 |
| 04.03 | Buttermilk powder, yoghurt | 9.2 | 16.5 | 19.7 | 28.4 | 27.9 | 31.7 | 40.3 | 32.6 | 34.0 |
| 04.04 | Whey, whey powder, etc | 507.4 | 221.3 | 185.9 | 192.9 | 1 741.3 | 2 917.9 | 1 257.6 | 888.3 | 859.6 |
| 04.05 | Butter, butter spreads and butter oil | 111.4 | 344.1 | 396.7 | 491.2 | 735.1 | 355.5 | 540.6 | 340.4 | 428.3 |
| 04.06 | Cheese and curd | 281.2 | 314.2 | 330.3 | 338.7 | 272.5 | 252.7 | 141.7 | 144.6 | 157.5 |
| **TOTAL** | | **50.6** | **56.5** | **115.4** | **171.7** | **151.7** | **167.8** | **129.7** | **148.3** | **108.6** |

***11) Table prepared by the Office of SAMPRO on the basis of information obtained from SARS and the estimated figures calculated on the basis of the assumption that the levels of import and export in the first 6 months of 2022, will be maintained during the rest of 2022.***

**Table 5[12)]**

## TOTAL QUANTITY OF UNPROCESSED MILK PURCHASED IN SOUTH AFRICA DURING THE YEARS 2008 TO 2021 and in January to July 2022

| 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 | 130.59 |
| 2021[13)] | 3 403 100 413 | -0.71 | 129.67 |
| 2022 (Jan-Jul) | 1 767 827 549 | | |

*12) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.*
*13) The total purchases of unprocessed milk in 2021, has been finalised in March 2022.*

**Table 6[14)]**

## UNPROCESSED MILK PURCHASES PER QUARTER OF EACH OF THE YEARS 2009 to 2022

| 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 |
| 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 |
| **Total (2014-2019)** | **4 593 786 412** | **23.666** | **4 292 069 929** | **22.112** | **4 966 409 552** | **25.586** | **5 558 591 245** | **28.637** | **19 410 857 138** | **100** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total (2009-2019)** | **7 869 301 209** | **23.718** | **7 330 765 818** | **22.095** | **8 490 915 543** | **25.592** | **9 487 002 920** | **28.594** | **33 177 985 490** | **100** |

| Year | Quarter 1 | | Quarter 2 | | Quarter 3 | | Quarter 4 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Kg | % | Kg | % | Kg | % | Kg | % | Kg | % |
| 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 | 791 682 284 | 23.263 | 739 610 710 | 21.733 | 874 291 458 | 25.691 | 997 515 959 | 29.311 | 3 403 100 411 | 100 |
| 2022[15)] | 788 572 029 | | 721 838 451 | | | | | | | |

*14) 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 green.*

*15) The figure in respect of the second quarter of 2022, is an estimated figure.*

**Table 7[16)]**

## UNPROCESSED MILK PURCHASES PER HALF YEAR IN EACH OF THE YEARS 2009 TO 2022

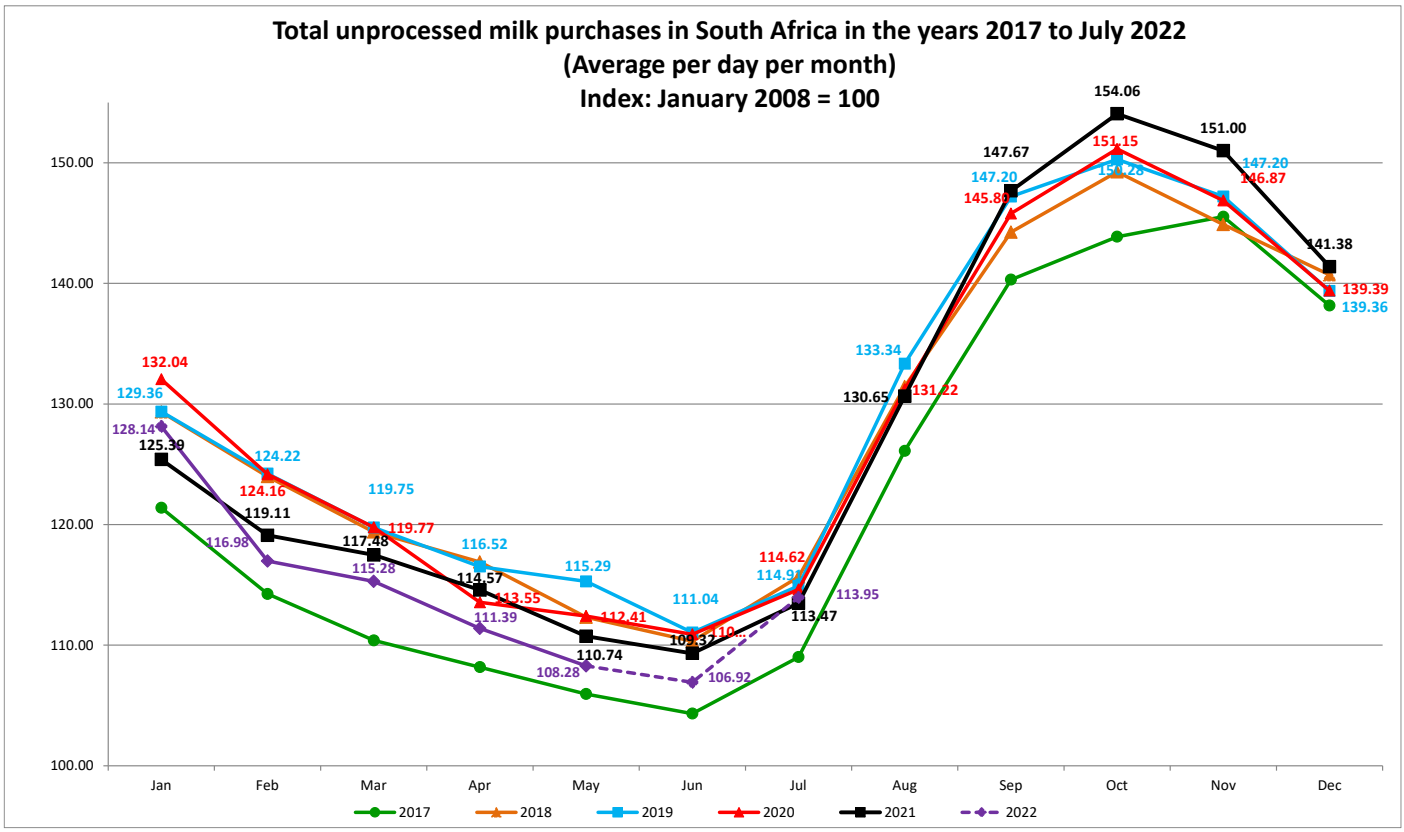
| Year | First Half | | Second Half | | Total | |
|---|---|---|---|---|---|---|
| | Kg | % | Kg | % | Kg | % |
| 2009 | 1 180 574 460 | 45.637 | 1 406 293 607 | 54.363 | 2 586 868 067 | 100.00 |
| 2010 | 1 236 931 500 | 45.622 | 1 474 304 532 | 54.378 | 2 711 236 032 | 100.00 |
| 2011 | 1 252 045 237 | 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 |
| 2019 | 1 574 114 313 | 45.855 | 1 858 688 083 | 54.145 | 3 432 802 396 | 100.00 |
| **Total (2014-2019)** | **8 885 856 341** | **45.778** | **10 525 000 797** | **54.222** | **19 410 857 138** | **100.00** |
| **Total (2009-2019)** | **13 625 952 714** | **45.809** | **16 119 230 380** | **54.191** | **29 745 183 094** | **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 | 1 510 410 480 | | | | | |

***16) 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. The figure in respect of the first half of 2022, is an estimated figure.***

## Graph 8[17)]

## AVERAGE UNPROCESSED MILK PURCHASES PER DAY PER MONTH IN SOUTH AFRICA IN THE YEARS 2017 TO JULY 2022




17) *Table 4 and Graph 7 prepared by the Office of SAMPRO on the basis of information obtained from MILK SA. The information in respect of 2012 to February 2022 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 June and July 2022 are estimated figures.*

**Table 8[18)]**

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

| | Percentage increase |
|---|---|
| January 2019 relative to January 2018 | -0.1 |
| February 2019 relative to February 2018 | -2.2 |
| March 2019 relative to March 2018 | 0.1 |
| April 2019 relative to April 2018 | -0,8 |
| May 2019 relative to May 2018 | 2.3 |
| June 2019 relative to June 2018 | 0.5 |
| July 2019 relative to Jul 2018 | -0.8 |
| August 2019 relative to August 2018 | 1.2 |
| September 2019 relative to September 2018 | 1.8 |
| October 2019 relative to October 2018 | 0.5 |
| November 2019 relative to November 2018 | 1.6 |
| December 2019 relative to December 2018 | -1.0 |
| 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 | 2.2 |
| February 2022 relative to February 2021 | -1.8 |
| March 2022 relative to March 2021 | -1.9 |
| April 2022 relative to April 2021 | -2.8 |
| May 2022 relative to May 2021 | -2.2 |
| June 2022 relative to June 2021 (est) | -2.2 |
| July 2022 relative to July 2021 (est) | 0.4 |

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

**Table 9[19)]**

**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 2022**

| Year | October to December percent | October to February percent | October to April percent | October to June percent |
|---|---|---|---|---|
| 2008/9 | 3.9 | 16.9 | 24.4 | 25.4 |
| 2009/10 | 5.0 | 14.6 | 20.4 | 21.2 |
| 2010/11 | 5.6 | 15.6 | 23.4 | 23.7 |
| 2011/12 | 6.6 | 14.5 | 19.5 | 18.2 |
| 2012/13 | 5.3 | 14.9 | 20.9 | 20.5 |
| 2013/14 | 4.2 | 18.0 | 22.9 | 21.8 |
| 2014/15 | 7.7 | 12.9 | 17.1 | 19.4 |
| 2015/16 | 7.9 | 15.9 | 20.5 | 22.0 |
| 2016/17 | 4.0 | 17.8 | 22.2 | 24.9 |
| 2017/18 | 5.7 | 13.8 | 18.7 | 23.3 |
| 2018/2019 | 7.3 | 16.8 | 21.9 | 25.6 |
| 2019/2020 | 7.8 | 17.4 | 24.4 | 26.2 |
| 2020/2021 | 7.8 | 21.2 | 24.2 | 27.7 |
| Average 2008/9 to 2020/2021 | 6.1 | 16.2 | 21.6 | 23.1 |
| 2021/2022 [20)] | 8.2 | 24.1 | 27.7 | 30.6 |

*19) Table prepared by the Office of SAMPRO based on information obtained from MILK SA.*
*20) The 2022 figure in respect of June is an estimated figure.*

**Table 10[21)]**

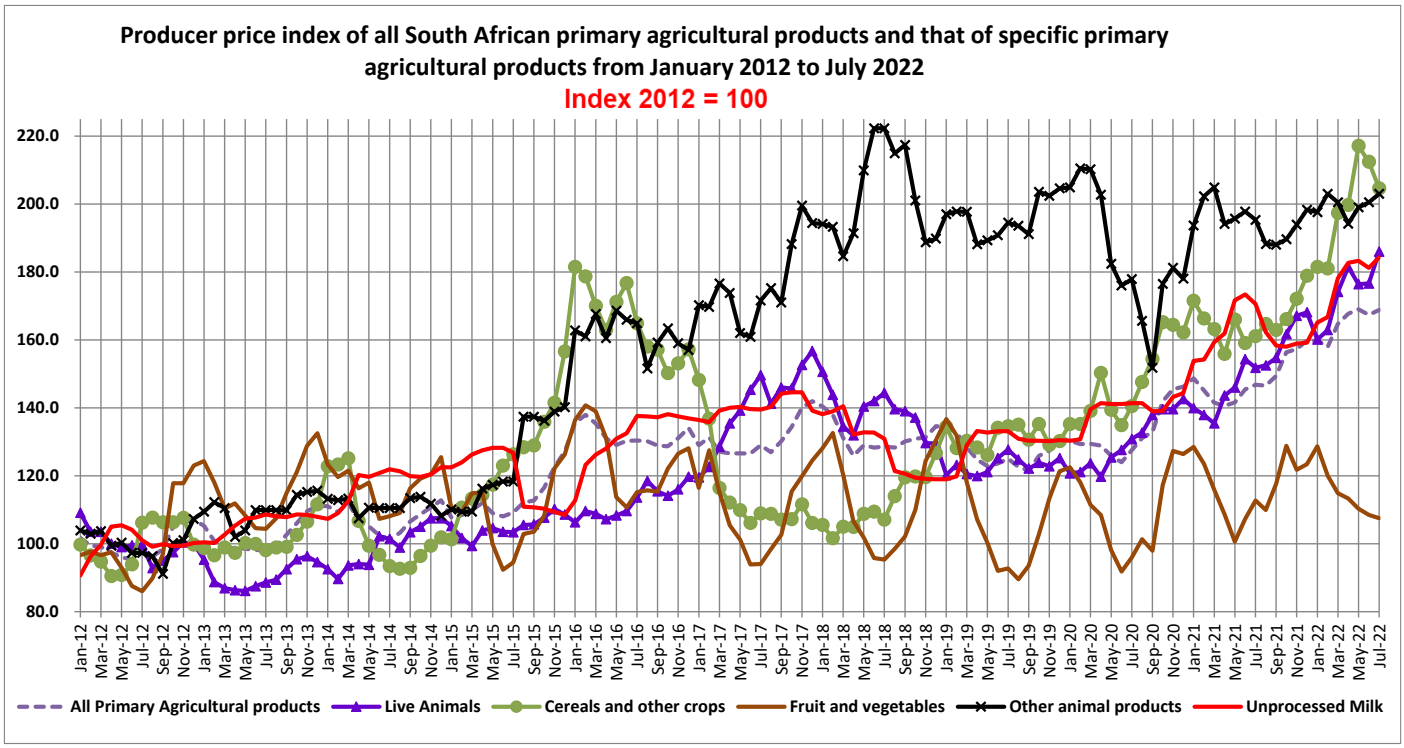
**INCREASE IN THE MASS OF MONTHLY UNPROCESSED MILK PURCHASES IN SOUTH AFRICA, FROM JULY TO AUGUST, JULY TO SEPTEMBER AND JULY TO OCTOBER IN EACH OF THE YEARS 2008 TO 2021**

| Year | July to August Percent | July to September Percent | July to October Percent |
|---|---|---|---|
| 2008 | 10.7 | 22.2 | 24.6 |
| 2009 | 12.4 | 24.5 | 29.3 |
| 2010 | 9.7 | 19.8 | 24.2 |
| 2011 | 10.6 | 26.3 | 28.2 |
| 2012 | 10.3 | 21.8 | 25.6 |
| 2013 | 11.4 | 23.0 | 26.3 |
| 2014 | 13.0 | 27.2 | 32.9 |
| 2015 | 10.6 | 20.7 | 25.1 |
| 2016 | 12.7 | 27.2 | 30.7 |
| 2017 | 15.9 | 31.7 | 34.3 |
| 2018 | 13.7 | 24.7 | 29.0 |
| 2019 | 16.0 | 28.1 | 30.8 |
| 2020 | 14.5 | 27.2 | 31.9 |
| Average 2008 to 2020 | 12.4 | 25.0 | 28.7 |
| 2021 | 15.1 | 30.1 | 35.8 |

*21) Table prepared by the Office of SAMPRO on the basis of information obtained from MILK SA. The information in respect of 2008 to 2020 is in respect of the total unprocessed milk purchased by all registered milk buyers declared in terms of Regulation 1396 of the Marketing of Agricultural Products Act and previous similar regulations.*

## Graph 9[22)]

## PRODUCER PRICE INDICES OF PRIMARY AGRICULTURAL PRODUCTS IN SOUTH AFRICA FROM JANUARY 2012 TO JULY 2022




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

**Table 11[23)]**

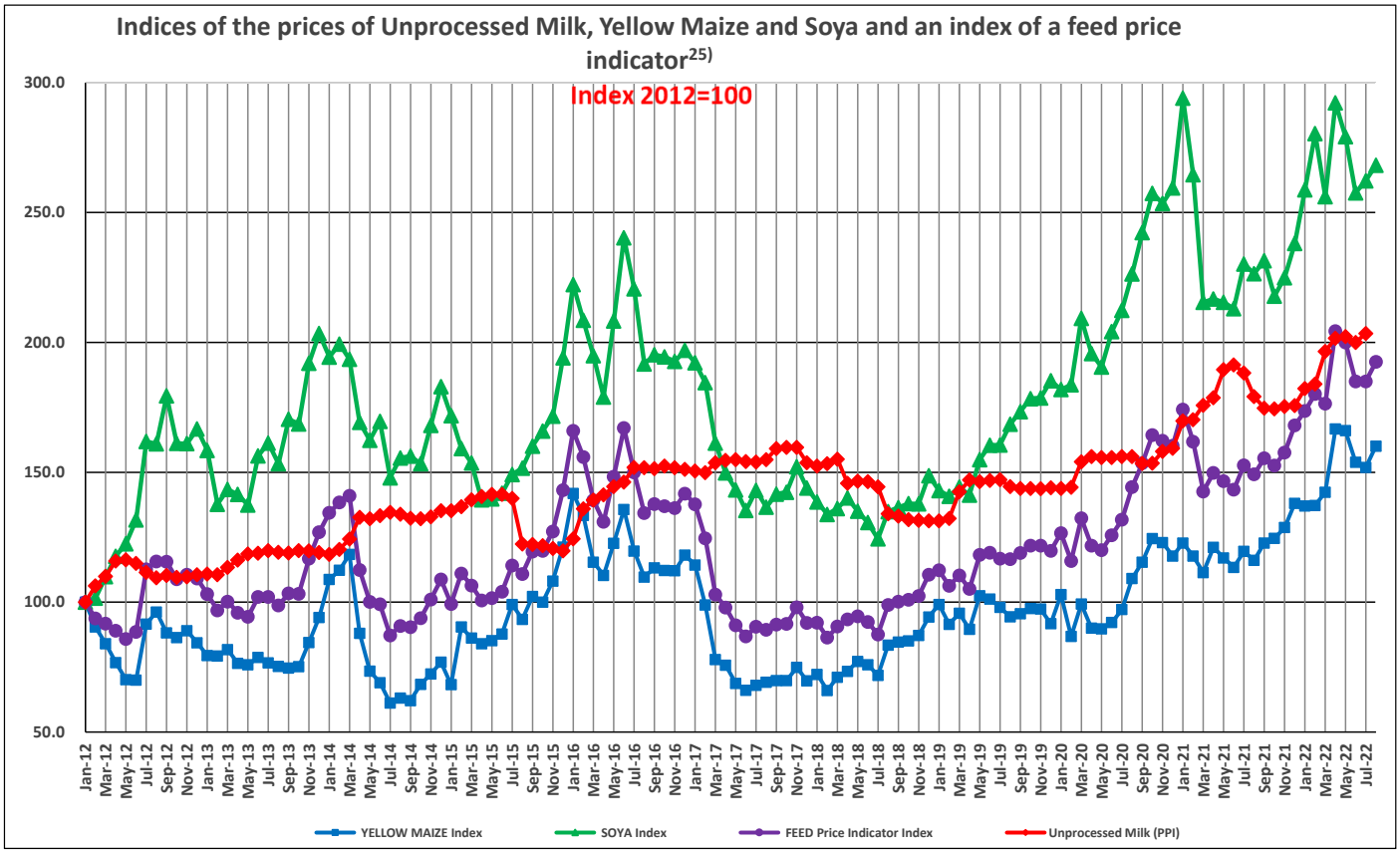
## MONTHLY INCREASE IN THE PRODUCER PRICE INDEX OF UNPROCESSED MILK

| | Percentage increase |
|---|---|
| January 2019 relative to December 2018 | 0.00 |
| February 2019 relative to January 2019 | 0.66 |
| March 2019 relative to February 2019 | 7.78 |
| April 2019 relative to March 2019 | 3.16 |
| May 2019 relative to April 2019 | -0.38 |
| June 2019 relative to May 2019 | 0.29 |
| July 2019 relative to June 2019 | 0.00 |
| August 2019 relative to July 2019 | -1.64 |
| September 2019 relative to August 2019 | -0.46 |
| October 2019 relative to September 2019 | 0.00 |
| November 2019 relative to October 2019 | -0.08 |
| December 2019 relative to November 2019 | 0.24 |
| January 2020 relative to December 2019 | -0.16 |
| February 2020 relative to January 2020 | 0.31 |
| March 2020 relative to February 2020 | 6.81 |
| 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 |

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

**Graph 10[24)]**

## INDICES OF THE PRICES OF UNPROCESSED MILK IN THE PERIOD JANUARY 2012 TO JULY 2022 AND THAT OF, YELLOW MAIZE AND SOYA AND AN INDEX OF A FEED PRICE INDICATOR[25)] IN THE PERIOD JANUARY 2012 TO AUGUST 2022




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

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

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

*25) The Feed price indicator index is an index of prices equal to 70 percent of the maize price, plus 30 percent of the soya price.*

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

**Table 12[27)]**

**FUTURE PRICES OF YELLOW MAIZE IN SOUTH AFRICA (R/TON) ON 31 MAY 2022 AND 6 SEPTEMBER 2022 ACCORDING TO SAFEX**

| | A<br>CLOSING BID<br>31 May 2022<br>R/Ton | B<br>CLOSING BID<br>6 September 2022<br>R/Ton | C<br>Percentage increase from A to B |
|---|---|---|---|
| September 2022 | 4 770 | 4 579 | -4.0 |
| December 2022 | 4 845 | 4 697 | -3.1 |
| March 2023 | 4 815 | 4 684 | -2.7 |
| May 2023 | | 4 382 | |

**Table 13[27)]**

**FUTURE PRICES OF SOYA BEANS IN SOUTH AFRICA (R/TON) ON 31 MAY 2022 AND 6 SEPTEMBER 2022 ACCORDING TO SAFEX**

| | A<br>CLOSING BID<br>31 May 2022<br>R/Ton | B<br>CLOSING BID<br>6 September 2022<br>R/Ton | C<br>Percentage increase from A to B |
|---|---|---|---|
| September 2022 | 9 495 | 9 050 | -4.7 |
| December 2022 | 9 619 | 9 230 | -4.0 |
| March 2023 | | 9 173 | |
| May 2023 | 8 517 | 8 505 | -0.1 |

*27) Table prepared by the Office of SAMPRO based on information as obtained from the SAFEX website on 6 September 2022.*

**Table 14[28)]**

**FERTILIZER PRICES IN SOUTH AFRICA IN AUGUST 2021 AND AUGUST 2022**

| Fertilizer | August 2021 Rand / Ton | August 2022 Rand / Ton | Percentage change from August 2021 to August 2022 |
|---|---|---|---|
| LAN (28) | 8 587 | 13 059 | 52.1 |
| Urea (46) | 10 919 | 15 291 | 40.0 |
| MAP | 15 498 | 22 978 | 48.3 |
| KCL | 10 897 | 23 660 | 117.1 |

**Table 15[28)]**

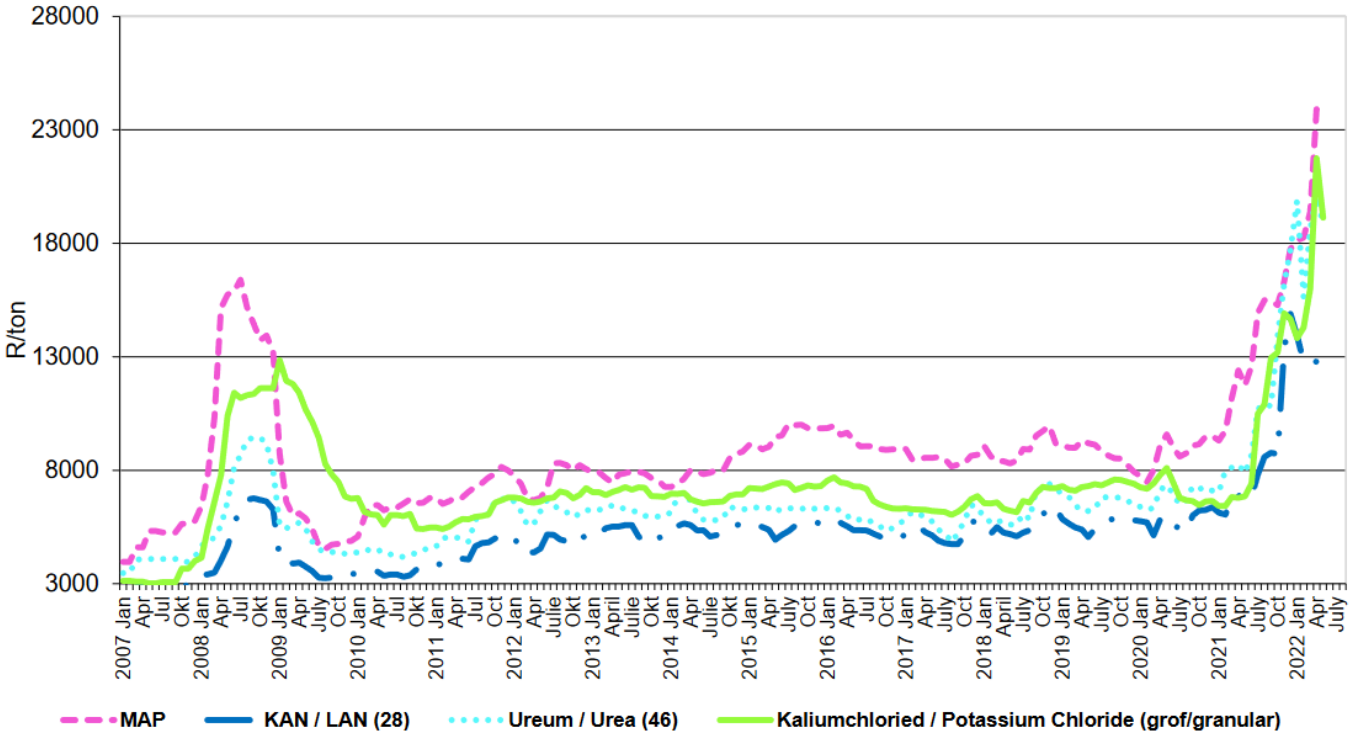
**FERTILIZER PRICES IN SOUTH AFRICA IN JULY 2022 AND AUGUST 2022**

| Fertilizer | July 2022 Rand / Ton | August 2022 Rand / Ton | Percentage change from July- August 2022 |
|---|---|---|---|
| LAN (28) | 14 170 | 13 059 | -7.8 |
| Urea (46) | 15 501 | 15 291 | -1.4 |
| MAP | 23 031 | 22 978 | -0.2 |
| KCL | 23 504 | 23 660 | 0.7 |

*28) Table prepared by the Office of SAMPRO based on information published by Grain SA.*

**Graph 11[29)]**

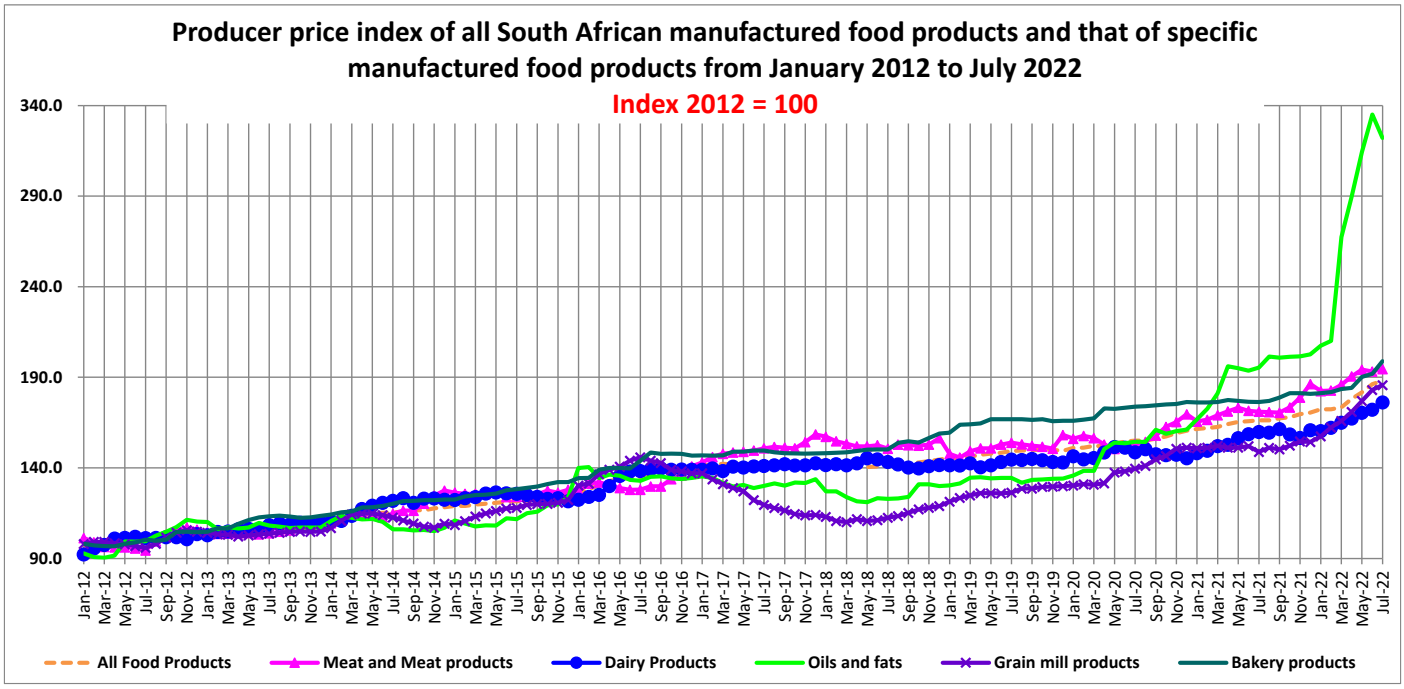
**FERTILIZER PRICES IN SOUTH AFRICA FROM JANUARY 2007 TO AUGUST 2022**




*29) Graph published by Grain SA.*

**Graph 12[30)]**

## PRODUCER PRICE INDICES OF MANUFACTURED FOOD PRODUCTS IN SOUTH AFRICA FROM JANUARY 2012 TO JULY 2022

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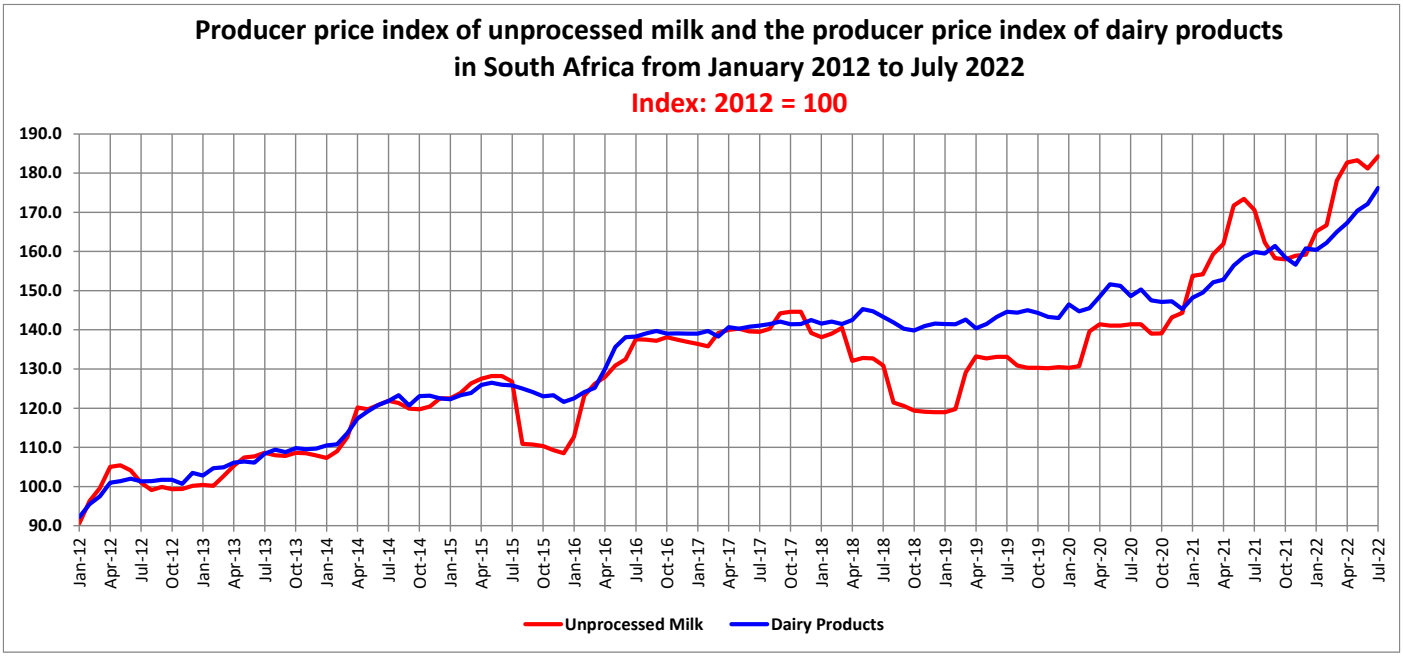
30) ***Graph prepared by the Office of SAMPRO based on information obtained from Statistics SA.***
***Note that the producer price index of dairy products measures the changes of the prices of a basket of dairy products consisting of fresh milk, UHT milk, yoghurt and cheddar cheese and products like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

**Graph 13[31)]**

## PRODUCER PRICE INDEX OF UNPROCESSED MILK AND THE PRODUCER PRICE INDEX OF DAIRY PRODUCTS IN SOUTH AFRICA, FROM JANUARY 2012 TO JULY 2022




31) *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 and cheddar cheese and products like cheese other than cheddar, maas, butter and milk powder are not included.*

**Table 16[32)]**

**INCREASE IN PRODUCER PRICE INDICES OF PARTICULAR CATEGORIES OF PRODUCTS WHICH INCLUDE INPUTS OF THE DAIRY INDUSTRY, IN THE YEAR WHICH ENDED IN JULY 2022**

| GROUP OF PRODUCTS | PERCENTAGE INCREASE |
|---|---|
| **Textiles, clothing and footwear** | ***5.3*** |
| Textiles | **3.2** |
| Clothing | **5.4** |
| Footwear | **9.1** |
| **Paper and printed products** | ***11.1*** |
| **Coke, petroleum, chemical, rubber and plastic products** | ***42.8*** |
| Coal and petroleum products | **61.7** |
| Petrol | **61.9** |
| Diesel | **69.9** |
| Other | **51.5** |
| Chemical products | **21.3** |
| Rubber and plastic products | **15.8** |
| **Metals, machinery, equipment and computing equipment** | ***11.3*** |
| Structural and fabricated metal products | **10.1** |
| General and special purpose machinery | **14.5** |
| Household appliances and office machinery | **4.9** |
| **Electrical machinery and communication and metering equipment** | ***8.9*** |
| **Electricity and water** | ***8.0*** |
| Electricity | **9.1** |
| Water | **7.2** |

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

**Table 17[32)]**

**INCREASE IN PRODUCER PRICE INDICES OF PARTICULAR INTERMEDIATE MANUFACTURED PRODUCTS, IN THE YEAR WHICH ENDED IN JULY 2022**

| GROUP OF PRODUCTS | PERCENTAGE INCREASE |
|---|---|
| **Intermediate manufactured goods** | ***14.7*** |
| **Textiles and leather goods** | **9.5** |
| **Sawmilling and wood** | **10.6** |
| **Chemicals, rubber and plastic products** | **17.8** |
| **Basic and other chemical** | **25.4** |
| **Plastic products** | **13.2** |
| **Rubber products** | **9.3** |
| **Glass and glass products** | **11.0** |
| **Basic and fabricated metals** | **16.4** |
| **Basic iron and steel** | **22.1** |
| **Basic precious and non-ferrous metals and castings** | **9.2** |
| **Recycling and manufacturing n.e.c.** | **6.1** |

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

**Table 18[33)]**

**CHANGES IN THE RETAIL SALES QUANTITIES FROM THE YEAR JULY 2020 TO JUNE 2021, TO THE YEAR JULY 2021 TO JUNE 2022, AND CHANGES IN THE RETAIL PRICES FROM JUNE 2021 TO JUNE 2022 OF SPECIFIC DAIRY PRODUCTS**

| PRODUCT | CHANGE IN DEMAND (QUANTITY) PERCENT | CHANGE IN RETAIL PRICES PERCENT |
|---|---|---|
| FRESH MILK | -7.7 | 4.1 |
| LONG LIFE MILK (UHT MILK) | 1.9 | 6.8 |
| FLAVOURED MILK | -0.7 | 4.9 |
| YOGHURT | -5.5 | 2.6 |
| MAAS | -1.9 | 2.2 |
| PRE-PACKAGED CHEESE | 1.5 | 4.4 |
| CREAM CHEESE | -2.6 | 5.3 |
| BUTTER | 0.7 | 1.6 |
| CREAM | -5.0 | 6.7 |

33) *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 19[34)]**

## CHANGES IN THE QUANTITIES OF RETAIL SALES OF SPECIFIC DAIRY PRODUCTS IN SOUTH AFRICA

| PRODUCT | Sales in the month of June 2022 versus the sales in the month of June 2021 | Sales in the 3 months from April 2022 to June 2022 versus the sales in the 3 months from April 2021 to June 2021 | Sales in the 6 months from January 2022 to June 2022 versus the sales in the 6 months from January 2021 to June 2021 | Sales in the 9 months from October 2021 to June 2022 versus the sales in the 9 months from October 2020 to June 2021 | Sales in the 12 months from July 2021 to June 2022 versus the sales in the 12 months from July 2020 to June 2021 |
|---|---|---|---|---|---|
| | percent | | percent | | percent |
| Fresh Milk | -8.4 | -7.8 | -8.4 | -7.7 | -7.7 |
| UHT milk | 1.2 | 4.6 | 2.8 | 2.2 | 1.9 |
| Flavoured milk | 3.7 | -0.5 | -1.7 | -1.1 | -0.7 |
| Yoghurt | -4.0 | -2.5 | -3.1 | -4.5 | -5.5 |
| Maas | 5.4 | -0.7 | 0.4 | 0.1 | -1.9 |
| Pre-packaged cheese | -1.8 | 1.4 | 2.2 | 2.4 | 1.5 |
| Cream cheese | -8.3 | 0.02 | -1.6 | -1.7 | -2.6 |
| Butter | -6.8 | 4.1 | 1.5 | 1.6 | 0.7 |
| Cream | -6.9 | -4.3 | -6.0 | -4.8 | -5.0 |

*34) 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 20[35)]**

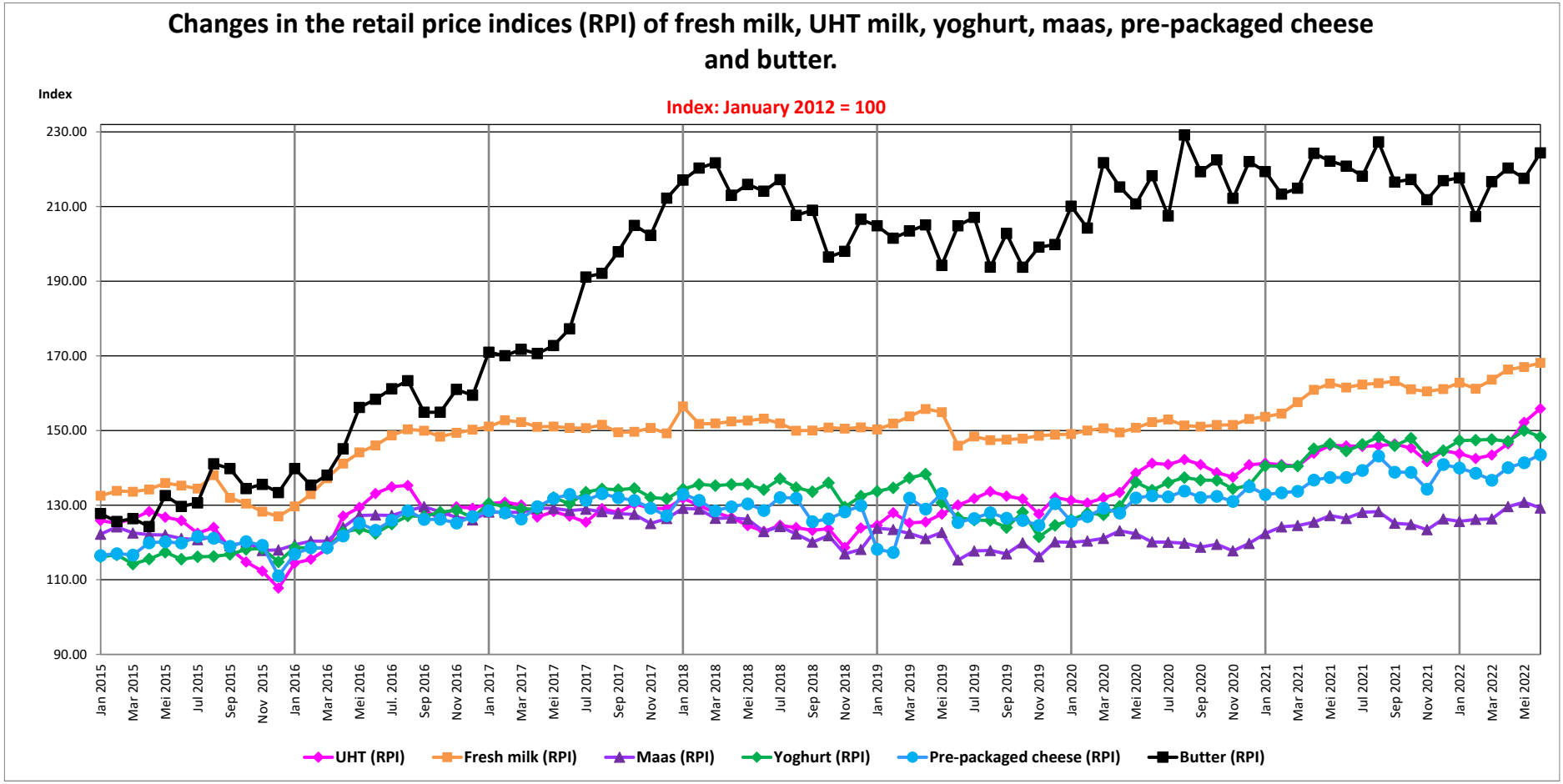
## THE AVERAGE RETAIL PRICES OF SPECIFIC DAIRY PRODUCTS IN JUNE 2022, COMPARED TO THE AVERAGE RETAIL PRICES OF THE PRODUCTS CONCERNED IN SPECIFIC PREVIOUS MONTHS OF 2021 AND 2020

| PRODUCT | June 2022 versus May 2022 (1 month ago) | June 2022 versus March 2022 (3 months ago) | June 2022 versus December 2021 (6 months ago) | June 2022 versus September 2021 (9 months ago) | June 2022 versus June 2021 (12 months ago) | June 2022 versus December 2020 (18 months ago) | June 2022 versus June 2020 (24 months ago) |
|---|---|---|---|---|---|---|---|
| | Percent | Percent | Percent | Percent | Percent | Percent | Percent |
| FRESH MILK | 0.7 | 2.7 | 4.3 | 3.0 | 4.1 | 9.8 | 10.4 |
| UHT MILK | 2.4 | 8.7 | 7.8 | 6.5 | 6.8 | 10.7 | 10.3 |
| FLAVOURED MILK | 0.2 | 5.7 | 7.4 | 3.8 | 4.9 | 12.1 | 11.7 |
| YOGHURT | -1.2 | 0.4 | 2.5 | 1.6 | 2.6 | 9.5 | 10.6 |
| MAAS | -1.2 | 2.3 | 2.3 | 3.3 | 2.2 | 8.0 | 7.6 |
| PRE-PACKAGED CHEESE | 1.5 | 5.0 | 1.9 | 3.4 | 4.4 | 6.4 | 8.3 |
| CREAM CHEESE | 5.9 | 4.4 | 3.7 | 5.8 | 5.3 | 11.0 | 15.1 |
| BUTTER | 3.1 | 3.6 | 3.4 | 3.6 | 1.6 | 1.1 | 2.8 |
| CREAM | 2.3 | 3.7 | 3.2 | 6.1 | 6.7 | 7.8 | 10.8 |

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.*

**Graph 14[36)]**

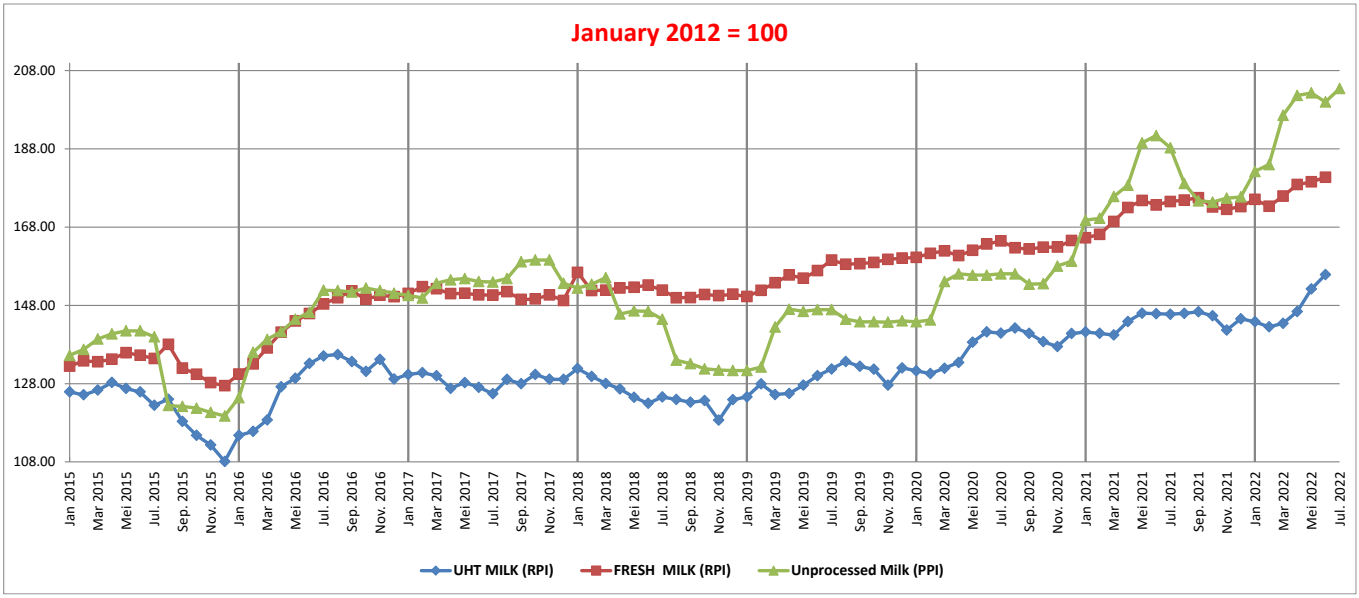
## THE RETAIL PRICE INDICES (RPI) OF SPECIFIC DAIRY PRODUCTS, FROM JANUARY 2015 TO JUNE 2022




*36) 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.*

**Graph 15[37)]**

**THE PRODUCER PRICE INDEX (PPI) OF UNPROCESSED MILK, FROM JANUARY 2015 TO JULY 2022 AND THE RETAIL PRICE INDICES (RPI) OF FRESH MILK AND UHT MILK, FROM JANUARY 2015 TO JUNE 2022**




**INCREASE IN THE QUANTITY OF UNPROCESSED MILK PURCHASES RELATIVE TO PREVIOUS YEAR (PERCENT)[38)]**

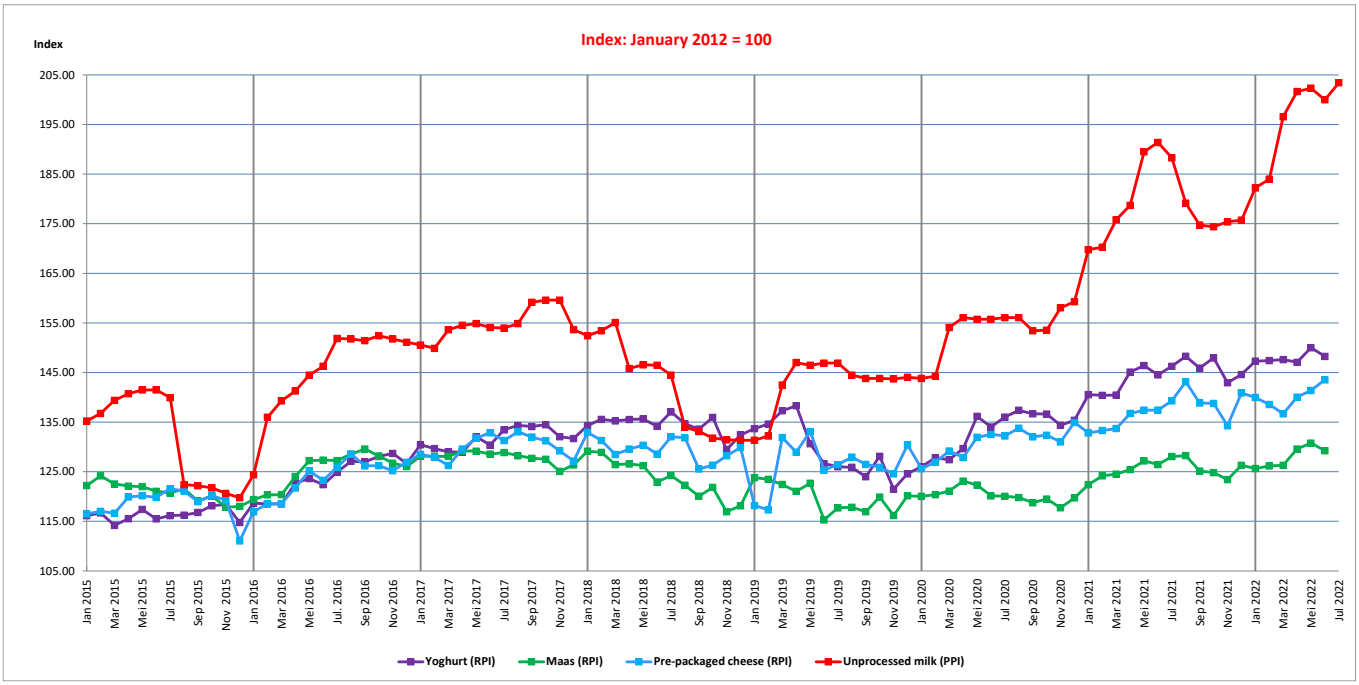
| 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| 6.37 | -0.45 | 3.02 | 4.82 | 0.65 | -0.16 | -0.71 |

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

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

**Graph 16[39)]**

**THE PRODUCER PRICE INDEX (PPI) OF UNPROCESSED MILK, FROM JANUARY 2015 TO JULY 2022 AND THE RETAIL PRICE INDICES (RPI) OF YOGHURT, MAAS AND PRE-PACKAGED CHEESE, FROM JANUARY 2015 TO JUNE 2022**




**INCREASE IN THE QUANTITY OF UNPROCESSED MILK PURCHASES RELATIVE TO PREVIOUS YEAR (PERCENT)[40)]**

| 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| 6.37 | -0.45 | 3.02 | 4.82 | 0.65 | -0.16 | -0.71 |

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

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

**Table 21[41)]**

**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 2021**

| YEAR | Percentage difference [42)] | | |
|---|---|---|---|
| | 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 |
| Average | 5.1 | -0.9 | 2.5 |

*41) 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.*

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