



SUMMARY OF KEY MARKET SIGNALS FOR THE DAIRY INDUSTRY, NOVEMBER 2021 EDITION

No3 29NOV

CONTENTS	Page
SYNOPSIS	2
INTRODUCTION	7
THE INTERNATIONAL MARKETS FOR DAIRY PRODUCTS AND UNPROCESSED MILK MARKETS IN MAJOR DAIRY COUNTRIES	7
THE SOUTH AFRICAN MARKETS FOR DAIRY PRODUCTS AND UNPROCESSED MILK	11
ANNEXURE A	24

SYNOPSIS

The low levels of volatility of the dairy price index (the difference between the highest and lowest price index in a year) of the Food and Agricultural Organization (FAO), in 2019, 2020, and in January to October 2021, relative to most previous years, are indicative that in the recent past, the supply of, and demand for, dairy products in the international market remained to a high extent, in balance amidst changing circumstances.

The FAO dairy price index in October 2021 is 15.5 percent higher than in October 2020 and 19.0 percent higher than in October 2019.

The future prices recorded at the Global Dairy Auction on 2 November 2021, for delivery in December 2021 to April 2022, showed the following:

- The price of whole milk powder moves sideways and the price in April 2022, is 1.4 percent higher than in December 2021;*
- The price of skimmed milk powder decreases from December 2021 to April 2022 with 3.9 percent;*
- The price of cheddar cheese moves sideways within a band of prices of which the highest is 2.1 percent higher than the lowest and the price in April 2022, is 1.8 percent lower than in December 2021; and*
- The price of butter moves sideways and the price in April 2022 is 0.7 percent lower than in December 2021.*

Different factors exist which can impact in the coming months, on the international supply of, and demand for, dairy products and thus on the prices of dairy products, such as:

- The developments in respect of COVID-19, which can influence the supply of, and the demand for, dairy products in the world;*
- Future weather conditions and its impact on the supply of unprocessed milk and thus on the supply of dairy products. In the next few months, weather conditions in the Southern hemisphere will be very important, as the peak production season of the Southern hemisphere, commences in the third quarter of the year; and*
- Developments in respect of international trade and other disputes.*

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.

SYNOPSIS (continued)

In the February 2021 edition of the “Summary of 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. Although the retail sales prices of eight of the nine dairy products increased in the year which ended in September 2021, the retail sales quantities of eight of the nine dairy products were lower than in the previous year. From August 2021 to September 2021, the retail sales prices of six of the nine dairy products decreased.

In 2020, in South Africa, the producer price index of dairy products increased in six months and decreased in six months. The net result of these changes was that the index in December 2020, was 1.6 percent higher than in December 2019. From December 2020 to September 2021 (the latest available information is in respect of September 2021), the producer price index of dairy products increased with 11.0 percent. The producer price index of dairy products in September 2021, was 9.4 percent higher than in September 2020 and 11.3 percent higher than in September 2019.

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 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 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 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 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 2020, was 33.3 percent.

SYNOPSIS (continued)

The extent of the seasonal decrease of the production of unprocessed milk in South Africa from October 2020 to June 2021, namely 28.1 percent, is higher than the average decrease of 22.7 percent in the years 2008/2009 to 2019/2020, and also higher than the previous highest decrease of 26.6 percent, which was recorded in the period October 2019 to June 2020.

The extent of the seasonal increase in production of unprocessed milk in South Africa, from July 2021 to October 2021, of 38.2 percent, is higher than the average increase of 28.7 percent in the previous thirteen years and it is also higher than the previous record high increase of 31.9 percent, which was recorded in 2020.

During the first ten months of 2021, the production of unprocessed milk in South Africa was 1.34 percent lower than in the same months of 2020, due to lower production in seven of the ten months. The production in April 2021, was slightly (0.5 percent) higher than in April 2020, while the production in September 2021 and October 2021, was respectively 2.0 percent and 3.2 percent higher than in the same months of 2020. In the three months which ended in October 2021, the production of unprocessed milk in South Africa was 1.5 percent higher than in the same months of 2020. Note that the figures in respect of September 2021 and October 2021, are estimated figures.

In 2020, the producer price index of unprocessed milk decreased in three months, remained the same in two months and increased in seven months. The net result was that the price index in December 2020, was 10.6 percent higher than in December 2019.

From December 2020 to June 2021, the producer price index of unprocessed milk increased with 20.1 percent, but from June 2021 to September 2021 (the latest available information is in respect of September 2021), it decreased with 8.7 percent. The producer price index of unprocessed milk in September 2021 (the latest available information is in respect of September 2021), is 13.8 percent higher than in September 2020 and 21.4 percent higher than in September 2019.

In the last three months of 2020 and in January 2021, the producer price index of unprocessed milk was lower than the index of the feed price indicator, as the last mentioned increased much more in the second half of 2020 than the producer price index of unprocessed milk. From February 2021 to September 2021, the producer price index of unprocessed milk was higher than the index of the feed price indicator. The extent to which the producer price index of unprocessed milk was higher than the index of the feed price indicator, increased from February 2021 to July 2021, but decreased from July 2021 to September 2021, mainly due to the decrease of the producer price index of unprocessed milk.

In light of the future prices of maize and soya, achieved in South Africa on 25 October 2021, significant lower feed prices should not be expected in the coming months. The relative high prices of maize and soya in South Africa, are the result of conditions in the international grain market.

SYNOPSIS (continued)

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, it was on higher levels, while in September 2021, it was 1.9 percent lower (the latest available information is in respect of September 2021).

The producer price index of unprocessed milk (2012 basis year) was from January 2015 to September 2021:

- *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, and in September 2021, slightly lower;*
- *With the exception of the last quarter of 2018 and in the first quarter of 2019, higher than the retail price index of pre-packaged cheese; and*
- *Higher than the retail price indices of yoghurt and maas.*

The South African primary and secondary dairy industries, like many other industries, were recently confronted by sudden and unexpected increases of the prices of important inputs like, fertilizer chemicals, packaging materials, electricity, fuel and capital equipment. The effect of these price increases will also impact negatively on the ability of the consumer to purchase goods and services. 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 poor service delivery by the public sector in respect of, for example, electricity, water and security.

In August 2021 edition of Summary of Key Market Signals for the Dairy Industry, it was stated in respect of South Africa, that:

- ***“The performance in the first half of 2021 of most dairy products does not support optimistic views regarding the demand in the coming months; and***
- ***Higher retail sales require greater consumer preference for dairy products, due to:***
 - ***Lower prices; and/or***
 - ***Factors other than price; and/or***
 - ***Higher consumer income.***
- ***Lower prices are unlikely, greater preference due to factors other than price, played out in 2020, and consumer income will not reach pre-Covid-levels.”***

SYNOPSIS (continued)

The information available in November 2021, including information regarding the retail sales of dairy products, indicates that the position described in the previous paragraph, is still valid and that, in addition, the dairy industry (primary and secondary), like many other industries, are confronted by unexpected high increases in the prices of important inputs, while the consumers will also be under pressure due to the increases of the prices. 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 riots in July 2021 and poor service delivery by the public sector in respect of, for example, electricity, water and security.

Obviously, the South African dairy industry does not only face challenges of economic and business economic nature, as issues such as animal health, animal welfare and the impact of the dairy industry on the environment, are also of great importance and increasingly under the spot light. Although the individual members of the dairy industry are primarily responsible to deal with these issues, major aspects of these issues can only be dealt with through the collective actions by the South African organised dairy industry (Milk SA, SAMPRO, MPO and Dairy Standard Agency). The work required in future in respect of these issues from individual members of the dairy industry and the organised dairy industry, will be more demanding than in the past.

The latest information regarding the increased rate of COVID-19 infections in South Africa and in other countries, increases the uncertainty in respect of, amongst other, the consumer demand in the immediate future in South Africa, including the demand for dairy products.

Introduction

1. 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.
2. 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.
3. 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 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.
4. 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 (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 of individual animals, weather conditions and geographical location. In the secondary dairy industry, differences are the result of factors like product range, reputation of brand name, productivity in respect of processing, manufacture and marketing, exposure to foreign competition and geographical location.
5. 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.

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

6. The FAO¹⁾ 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, maas and whey powder, are not included in the basket as the international trade of these products is relatively limited.

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

7. From May 2020 to May 2021, the FAO dairy price index increased with 28.2 percent from 94.4 to 121.1. The last mentioned level is 13.6 percent higher than in May 2019, and 8.7 percent higher than in May 2018. In respect of the increase from May 2020 to May 2021, of 28.2 percent, the FAO stated on 3 June 2021:

“The FAO Dairy Price Index averaged 120.8 points in May, up to 1.7 points (1.5 percent) from April, marking one year of uninterrupted increases and lifting the value 26.4 points (28 percent) above its level of one year ago. However, the index is still 22.8 percent below its peak value reached in December 2013. In May, international quotations for skim milk powder rose the most, reflecting solid import demand amid limited spot supplies from the European Union, and those for whole milk powder increased on high import purchases, especially by China, despite New Zealand’s offer of large sales. Cheese quotations also strengthened, mostly due to lower supplies from the European Union amidst strong demand. By contrast, butter prices fell on increased export supplies from New Zealand, marking the end of an eleven-month long price rally.” (Note that FAO adjust their price index figures previously published, from time to time).

8. From May 2021 to August 2021, the FAO dairy price index decreased with 4.2 percent from 121.1 to 116.0, which is 13.6 percent higher than in August 2020 and 15.6 percent higher than in August 2019. The FAO commented as follows in respect of the decrease from May 2021 to August 2021:

“In August, international quotations for milk powders fell, reflecting the continued weakness in global import demand for spot supplies combined with seasonally rising export availabilities in Oceania during the new production season. By contrast, price quotations for cheese rose, underpinned by increased internal demand and tightened supplies in Europe, offset by a slight decline in prices in Oceania on rising production. Butter prices also rose slightly, pressured by high import demand from East Asia for near-term deliveries.”

9. From August 2021 to October 2021 (the latest available information is in respect of October), the FAO dairy price index increased with 3.8 percent to a level which is 15.5 percent higher than in October 2020 and 19.0 percent higher than in 2019. The FAO commented as follows in respect of the increase from August 2021 to October 2021:

“In October, international price quotations for butter, skim milk powder and whole milk powder rose steeply for the second consecutive month, underpinned by firm global import demand amid buyers’ efforts to secure supplies to build stocks. Seasonally low milk supplies and tight inventories in Europe and a slower start than earlier anticipated to the new milk production season in Oceania also lent support to world milk prices. By contrast, cheese prices remained largely stable, as supplies from major producers were adequate to meet global import demand.”

10. As shown in the previous two paragraphs, the level of the price index for dairy products of the FAO frequently changed.

11. In the last twenty-one years (2000 to 2020) 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-one years was 26.3 percent. (See Table 1 of Annexure A).
12. In the last ten years (2011 to 2020) 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 2019 of 7.0 percent, 8.8 percent in 2020, and 8.9 percent in January to October 2021, are indicative that in the recent past, the supply of and the demand for dairy products in the international market, remained to a high extent in balance, amidst changing circumstances.
13. The FAO price index for dairy products reflects the changes in the prices of a basket of dairy products traded internationally and thus not the movements of the prices in the international trade of individual types of dairy products. Due to different supply and demand situations in respect of the different dairy products, the price movements of the different dairy products often differ.
14. In September 2021, the price in the international market of butter was the highest, followed by the prices of cheddar cheese, whole milk powder and skimmed milk powder. Following decreases of the prices which commenced in respect of butter and cheddar cheese in May 2021, whole milk powder in April 2021 and skimmed milk powder in June 2021, the price of butter increased in from July 2021 to August 2021 and from August 2021 to September 2021, while the prices of the other three products increased from August 2021 to September 2021. (See Graph 2 of Annexure A).
15. The changes of the prices of the dairy products achieved at the Global Dairy Trade Auction on 2 November 2021, for delivery in December 2021 to April 2022, are as follows:
 - The price of whole milk powder moves sideways from December 2021 to April 2022 and the price in April 2022 is 1.4 percent higher than in December 2021;
 - The price of skimmed milk powder decreases from December 2021 to April 2022, and the price in April 2022 is 3.9 percent lower than in December 2021;
 - The price of cheddar cheese changes from month to month within a band of prices of which the highest is 2.1 percent higher than the lowest as recorded in April 2021; and
 - The price of butter moved sideways from December 2021 to April 2022 in a band of prices of which the highest is 2.6 percent higher than the lowest, and the price in April 2022 is 0.7 percent lower than in December 2021. (See Table 2 of Annexure A).
16. The expectation of the Department of Agriculture of the USA regarding future prices of dairy products in the USA, published on 21 October 2021, indicates in respect of cheddar cheese, butter and skimmed milk powder, sideways movements from the last quarter of 2021, to the third quarter of 2022. (See Graph 3 of Annexure A).

17. Different factors exist which can impact, in the coming months, on the international supply and demand of dairy products and thus on the prices of dairy products, such as:
- The developments in respect of COVID-19, which can influence the supply and demand for dairy products in the world and which can disrupt the international trade in respect of dairy and other products. In November 2021, the available information shows an increase of infection in Europe but hopefully, due to the number of people vaccinated, the impact of Covid-19 will not be as severe as in the past;
 - Future weather conditions and its impact on the supply of unprocessed milk and thus on the supply of dairy products. The peak production season of the Southern hemisphere, commenced in the third quarter of the year, while that of the Northern hemisphere commences at the end of the first quarter of the year; and
 - Developments in respect of international trade and other disputes.
18. In light of the previous paragraph:
- Predictions regarding price movements in the near future, should be viewed with great caution; and
 - Information and expectations regarding new developments in respect of the international supply and demand of unprocessed milk and dairy products can, in the coming months, result in volatile price movements in the international dairy market.
19. 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 4 of Annexure A).
20. 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, it moved to higher levels than in 2018, 2019 and 2020. The average estimated price in the EU in October 2021 (the latest available information is in respect of October 2021), was 8.2 percent higher than in October 2020. (See Graph 6 of Annexure A). The movements of the price of unprocessed milk in the United States of America, in 2020, was very volatile and the highest price exceeded the lowest, with approximately 52.0 percent. Thus far in 2021, the price movement was much less volatile. (See Graph 5 and Graph 6 of Annexure A).

The South African Markets for Dairy Products and Unprocessed Milk

21. In respect of 2020, information regarding the import and export of dairy products by South Africa, shows the following:
- The mass of exports in 2020, was 3.6 percent higher than exports in 2019, due to the higher exports of four of the six types of dairy products, namely milk and cream (0401), whey (0404), butter (0405) and cheese (0406). The products of which the exports were lower, are concentrated milk (0402), and buttermilk and yoghurt (0403);
 - The average f.o.b. export prices in 2020, of five of the six types of dairy products, were higher than in 2019. The products of which the export prices increased are milk and cream (0401), concentrated milk (0402), whey (0404), butter (0405) and cheese (0406), while the average export price of buttermilk and yoghurt (0403) in 2020, was lower than in 2019;
 - The mass of imports in 2020, was 19.9 percent lower than the imports in 2019 due to the lower imports of three of the six types of dairy products, namely milk and cream (0401), whey (0404) and cheese (0406). The products of which the mass of imports were higher, are concentrated milk (0402), buttermilk and yoghurt (0403) and butter (0405);
 - The average f.o.b. import prices in 2020, of five of the six types of dairy products, namely milk and cream (0401), concentrated milk (0402), buttermilk and yoghurt (0403), whey (0404) and cheese (0406), were higher than in 2019, while the import price of butter (0405) was lower; and
 - In terms of mass, South Africa was in 2020, a net exporter of milk and cream (0401) and buttermilk and yoghurt (0403), and a net importer of concentrated milk (0402), whey (0404), butter (0405) and cheese (0406). (See Table 3 and Table 4 of Annexure A).
22. Information regarding imports and exports in the first nine months of 2021, is available and according thereto:
- The estimated²⁾ mass of exports in 2021, is 4.8 percent higher than in 2020, and 8.6 percent higher than in 2019. The increase from 2020 to 2021, is the result of the increase in the estimated 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 the first nine months of 2021 of one of the six types of dairy products namely, butter (04.05) is 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), are higher;

2) *The estimated figures were calculated on the assumption that the levels of imports and exports in the nine months of 2021, will be maintained in the rest of 2021. These estimated figures should be considered with great caution as the patterns of imports and exports (distribution of imports and exports per month during a year), differ significantly from year to year.*

- The estimated mass of imports in 2021, is 30.2 percent higher than in 2020, and 4.4 percent higher than in 2019. This increase is the result of the increase in the estimated mass of imports of three of the six types of dairy products namely, milk and cream (04.01), concentrated milk (04.02) and cheese (04.06). The estimated imports in 2021, of buttermilk and yoghurt (04.03), whey (04.04) and butter (04.05) are lower than the imports in 2020;
- The average f.o.b. import price in the first nine months of 2021, of each of the six types of dairy products, is lower than the average import price in 2020; and
- According to the estimated mass of imports and exports, South Africa will, in 2021, be a net exporter of buttermilk and yoghurt (04.03), and a net importer of the other five types of dairy products.

23. The production of unprocessed milk in South Africa is just like in other countries seasonal, with high production in summer and low production in winter. In South Africa, in the thirteen years, 2008 to 2020:

- The highest production per day per month was in October (eleven years), or November (two years);
- The lowest production per day per month was in April (three years), May (three years), or June (seven years); and
- The highest production per day per month was on average 33.0 percent higher than the lowest. The highest difference of 39.5 percent was recorded in 2017, whilst the lowest of 25.2 percent, was recorded in 2015 (See Graph 7 of Annexure A).

24. 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; and
- 2.26 percent in the twelve years from 2008 to 2020. (See Table 5 of Annexure A).

25. From 2008 to 2020, the total unprocessed milk purchases per annum in South Africa increased with 30.59 percent, but the pattern of production of unprocessed milk during each of the last twelve years, 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.

26. 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, is 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).
27. 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 4.8 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).
28. 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 Table 5 and Table 8 of Annexure A).
29. 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 ingredients³⁾ of feed for dairy cattle and which eroded the positive impact of the increase of the prices of unprocessed milk which occurred.

3) *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.*

30. During seven of the first ten months of 2021, the production of unprocessed milk in South Africa was lower than in the same months of 2020, and the production in April 2021, as well as in September 2021 and October 2021, was higher than in the same months of 2020. The net result is that:
- The estimated total production in the first ten months of 2021 was 1.34 percent lower than in the same months of 2020; but that
 - The estimated total production in the last three months (August, September, October 2021), was 1.5 percent higher than in the same three months of 2020. Note that the figures in respect of September and October 2021, are estimated figures. (See Table 8 of Annexure A).
31. The seasonal decrease in the production of unprocessed milk in South Africa from October 2020 to June 2021, was 28.1 percent, which is higher than the average decrease of 22.7 percent recorded in the years from 2008/2009 to 2019/2020, and also higher than the previous record high decrease of 26.2 percent, which was recorded in 2019/2020. In this regard, it should be kept in mind, as stated in paragraph 28, that the production in October 2020 was on a record high level relative to the production in October of the previous ten years and that the production in June 2021, was lower than in June 2020, 2019 and 2018, but higher than in June of the previous eight years. (See Table 9 of Annexure A).
32. Regarding the seasonal increase in the production of unprocessed milk in South Africa, the following:
- The increase from July 2020 to October 2020, of 31.9 percent, was 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, 2008 to 2020. (See Table 10 of Annexure A); and
 - The increase from July 2021 to October 2021 was, according to the estimated figures, 38.2 percent, which is the highest increase recorded during the same periods in the fourteen years, 2008 to 2021. (See Table 10 of Annexure A).
33. In 2019, the producer price index of unprocessed milk did not change in January, July and October, but increased in February, March, April, June and December and decreased in May, August, September and November. The net result of the changes is that the producer price index of unprocessed milk in December 2019, was 9.7 percent higher than in December 2018. This increase was from a low level and the index figure in December 2019, is lower than the index figures of the first seven months of 2018, and 6.3 percent lower than in December 2017. (See Graph 8 and Table 11 of Annexure A).

34. In 2020 the producer price index of unprocessed milk, increased in January, February, March, April, July, November and December, while it decreased in May and September. The net result of these price movements is that the price index of unprocessed milk in December 2020, was 10.6 percent higher than in December 2019. (See Table 11 and Graph 8 of Annexure A).
35. From December 2020 to June 2021, the producer price index of unprocessed milk increased with 20.1 percent and from June 2021 to September 2021 (the latest available information is in respect of September 2021), it decreased with 8.7 percent to a level which is 13.8 percent higher than in September 2020, and 21.4 percent higher than in September 2019. (See Table 11 and Graph 8 of Annexure A).
36. In each month of 2020, the producer price index of unprocessed milk was at lower levels than the producer price index of dairy products. In January to August 2021, the producer price index of unprocessed milk was higher than that of dairy products, but in September it was 1.9 percent lower. (See Graph 12 of Annexure A).
37. In most months of 2020, and in the first three months of 2021, as well as in August 2021 and September 2021, the producer price index of unprocessed milk was below the producer price index of “cereals and other crops”, while in April 2021 to July 2021, the producer price index of unprocessed milk was higher than the producer price index of “cereals and other crops”. (See Graph 8 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 favourable 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;
 - 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. (See Graph 9 of Annexure A); and
 - 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 of the producer price index of unprocessed milk and decrease of 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. Mainly due to the decrease of the producer price index of unprocessed milk in July 2021, August 2021 and September 2021, the extent to which the producer price index of unprocessed milk

exceeded the index of the feed price indicator, decreased from July 2021 to September 2021. (See Graph 9 of Annexure A).

38. Regarding the future price movements of yellow maize and soya, the following:
- The prices of yellow maize achieved on Safex on 25 October 2021, for delivery in December 2021 to May 2022, are from 0.6 percent to 0.8 percent higher than the prices achieved on 24 August 2021;
 - The prices of yellow maize achieved on Safex on 25 October 2021, decrease from December 2021 to May 2022 with 5.6 percent. (See Table 12 of Annexure A);
 - The prices of soya achieved on Safex on 25 October 2021 for delivery in December 2021 to May 2022 are from 0.5 percent to 2.0 percent lower than the prices achieved on 24 August 2021; and
 - The prices of soya achieved on Safex on 25 October 2021, for delivery in December 2021 to May 2022, decrease with 3.7 percent; (See Table 13 of Annexure A).
39. From the previous paragraph, it is clear that significantly lower feed prices should not be expected in the coming months.
40. It should be noted that the relative high prices of maize and soya are not the result of low production in South Africa of these products and that it is the result of the prices in the international market.
41. The primary agricultural industry, including the primary dairy industry is confronted by unexpected and very big increase of the prices of inputs like fuel, electricity, chemicals and fertilizers. As an example, the magnitude of the increases of the prices of fertilizers are indicated in Table 14 and Graph 16 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 46, the agro-processing industry, including the secondary dairy industry and other industries, are also confronted by sharp increases in the prices of inputs.
42. 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.
43. 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 11 of Annexure A).

44. In 2020, the producer price index of dairy products:

- Decreased in five months and increased in seven months; and
- The highest index was recorded in May 2020 and it was 4.8 percent higher than the lowest, which was recorded in February 2020;

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

45. From December 2020 to September 2021 (the latest available information is in respect of September 2021), the producer price index of dairy products increased with 11.0 percent to a level 9.4 percent higher than in September 2020, and 11.3 percent higher than in September 2019. (See Graph 11 of Annexure A).

46. The agro-processing industry, including the secondary dairy industry and other industries are confronted by unexpected and big increases of the prices of important inputs like fuel, electricity, packaging materials, chemicals and capital equipment. (See Table 15 and Table 16 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 and poor service delivery by the public sector in respect of, for example, electricity, water and security. The sharp rise in the prices will also weaken the ability of consumers to purchase goods and services.

47. 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.

48. 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, influences the quantities sold.

49. 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.

50. In the February 2021 edition of the “Summary of 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”.

51. Key observations in respect of the performance in the South African retail market of nine dairy products up to September 2021, and which is shown in Table 17, Table 18, and Table 19 of Annexure A, are as follows:
- a) In the year which ended in September 2021, relative to the year which ended in September 2020:
- The retail sales quantities of eight of the nine dairy products were lower, namely fresh milk (7.4 percent), UHT milk (5.2 percent), flavoured milk (1.2 percent), yoghurt (3.1 percent), maas (3.7 percent), cream cheese (5.0 percent), butter (2.8 percent) and cream (0.7 percent); and
 - The retail sales quantity of one of the nine dairy products was higher, namely pre-packaged cheese (0.1 percent).
- b) In the quarter which ended in September 2021, relative to the quarter which ended in September 2020, the retail sales quantities of seven of the nine dairy products, were lower than in the same quarter of the previous year. The changes in the retail sales quantities of the nine dairy products, were as follows:
- Fresh milk **-7.7** percent;
 - UHT milk 0.4 percent;
 - Flavoured milk 2.0 percent;
 - Yoghurt **-11.4** percent;
 - Maas **-8.0** percent;
 - Pre-packaged cheese **-1.3** percent;
 - Cream cheese **-5.3** percent;
 - Butter **-2.0** percent; and
 - Cream **-5.8** percent.
- c) The retail sales quantities in September 2021 of three of the nine dairy products, were higher than in September 2020, while the retail sales quantities of the other six dairy products were lower. The changes of the retail sales quantities were as follows:
- Fresh milk **-7.2** percent;
 - UHT milk **-5.4** percent;
 - Flavoured milk 1.2 percent;
 - Yoghurt **-10.0** percent;
 - Maas **-4.9** percent;
 - Pre-packaged cheese 1.0 percent;
 - Cream cheese **-3.1** percent;
 - Butter 5.2 percent; and
 - Cream **-6.2** percent.

- d) In the year which ended in September 2021, the retail sales prices of eight of the nine dairy products increased, while the retail sales price of one dairy product decreased. The changes of the retail sales prices were as follows:
- Fresh milk 8.1 percent;
 - UHT milk 3.8 percent;
 - Flavoured milk 10.1 percent;
 - Yoghurt 7.5 percent;
 - Maas 5.4 percent;
 - Pre-packaged cheese 5.2 percent;
 - Cream cheese 8.9 percent;
 - Butter -1.3 percent; and
 - Cream 4.4 percent.
- e) In the quarter which ended in September 2021, the retail sales prices of five of the nine dairy products increased, while the retail sales prices of four dairy products decreased. The changes in the retail sales prices of the nine dairy products concerned, were as follows:
- Fresh milk 1.1 percent;
 - UHT milk -0.6 percent;
 - Flavoured milk 1.0 percent;
 - Yoghurt 0.7 percent;
 - Maas -1.0 percent;
 - Pre-packaged cheese 1.0 percent;
 - Cream cheese -0.5 percent;
 - Butter -1.9 percent; and
 - Cream 0.5 percent.
- f) From August 2021 to September 2021, the retail sales prices of six of the nine dairy products decreased and that of three of the dairy products increased. The changes in the prices were as follows:
- Fresh milk 0.4 percent;
 - UHT milk 0.3 percent;
 - Flavoured milk 2.4 percent;
 - Yoghurt -1.7 percent;
 - Maas -2.4 percent;
 - Pre-packaged cheese -3.0 percent;
 - Cream cheese -1.7 percent;

- Butter -4.7 percent; and
- Cream -1.0 percent.

g) In the years 2012 to 2016, the extent to which the average annual retail price of UHT milk exceeded that of fresh milk, with 3.9 percent to 11.4 percent. In 2017 and 2018, the average annual retail price of UHT milk was respectively 0.2 percent and 3.7 percent lower than that of fresh milk while in 2019 and 2020, the average annual retail price of UHT milk was respectively 0.2 percent and 2.3 percent higher than that of fresh milk. In January 2021 to September 2021, the average annual price of UHT milk was 3.4 percent lower than that of fresh milk. (See Table 20 of Annexure A).

52. In general, the performance of dairy products described in the previous paragraph, shows that in the year which ended in September 2021, the drop in the retail sales quantities relative to the previous year, coincided with increases of the retail sales prices, but that from August 2021 to September 2021, the retail sales prices of six of the nine dairy products decreased.

53. The relative movements of the retail prices of particular dairy products in the six years from 2015 to 2020, and in January 2021 to September 2021, are shown in Graph 13 of Annexure A. This graph shows, amongst other, 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 fueled 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 the first three quarters of 2021, 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 more up and down during meaningful periods, than that of the other dairy products, excluding butter.

54. Regarding the relative movements of the price of unprocessed milk and the prices of the different dairy products⁴⁾, 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, 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.
55. 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 six years, 2015 to 2020 and in January 2021 to September 2021, against the background of the increase in unprocessed milk purchases per annum, are shown in Graph 14 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 and in September 2021, the retail price index of fresh milk was slightly higher than the producer price index of unprocessed milk;
 - In the 81 months period from January 2015 to September 2021, 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 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. Typically, change in production (supply), that is not in pace with the change in the demand, results in price movements.

4) *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.*

56. 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 15 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 13. In this regard, it should be noted that the contributions of the price of unprocessed milk to the prices of UHT milk and maas, are much higher than the contribution of the price of unprocessed milk to the retail price of yoghurt, due to considerable higher value-adding required by the manufacturing of yoghurt, and also, that recombined and reconstituted milk⁵⁾ instead of unprocessed milk, can be used to manufacture maas and yoghurt; and
- In the 81 months from January 2015 to September 2021, the price index of unprocessed milk increased more than the retail price indices of the three dairy products concerned and that the increases in the retail price indices of maas are lower than that of yoghurt and pre-packaged cheese.

57. In August 2021 edition of Key Market Signals for the Dairy Industry, it was stated in respect of South Africa, that:

- *“ The performance in the first half of 2021 of most dairy products does not support optimistic views regarding the demand in the coming months; and*
- *Higher retail sales require greater consumer preference for dairy products, due to:*
 - *Lower prices, and/or*
 - *Factors other than price, and/or*
 - *Higher consumer income.*
- *Lower prices are unlikely, greater preference due to factors other than price, played out in 2020, and consumer income will not reach pre-Covid-levels.”*

5) 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”.*

58. The information available in November 2021, including information regarding the retail sales of dairy products, indicates that the position described under paragraph 55, is still valid and that, in addition, the dairy industry (primary and secondary), like many other industries, are confronted by unexpected high increases in the prices of important inputs, while the consumers will also be under pressure due to the increases of the prices of services and goods. 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 riots in July 2021, and poor service delivery by the public sector in respect of, for example, electricity, water and security.
59. Obviously, the South African dairy industry does not only face challenges of economic and business economic nature, as issues such as animal health, animal welfare and the impact of the dairy industry on the environment, are also of great importance and more in the spotlight than in the past. Although the individual members of the dairy industry are primarily responsible to deal with these issues, major aspects of these issues can only be dealt with through the collective actions by the South African organized dairy industry (Milk SA, SAMPRO, MPO and Dairy Standard Agency). The work required in future in respect of these issues from individual members of the dairy industry and the organized dairy industry, will be more demanding than in the past.
60. The latest information regarding the increased rate of Covid-19 infections in South Africa and in other countries, increases the uncertainty in respect of, amongst other, the consumer demand in the immediate future in South Africa, including the demand for dairy products.

Alwyn P Kraamwinkel (M.Com)

CEO: SAMPRO

25 November 2021

<i>The following contributions to this report are acknowledged:</i>	
<i>De Wet Jonker (B.Econ/BCom Hons), Jan Theron, (B.Com Economy), and Marietjie le Roux (BCom)</i>	<i>Collecting information, compiling of tables and graphs and assessment of information.</i>
<i>Gerhard Venter (M.Sc Agric Food Science)</i>	<i>Dairy Technical advice.</i>
<i>Yvonne Steyn and Sonja van Jaarsveld</i>	<i>Typing of draft versions of the report and typing of final report</i>

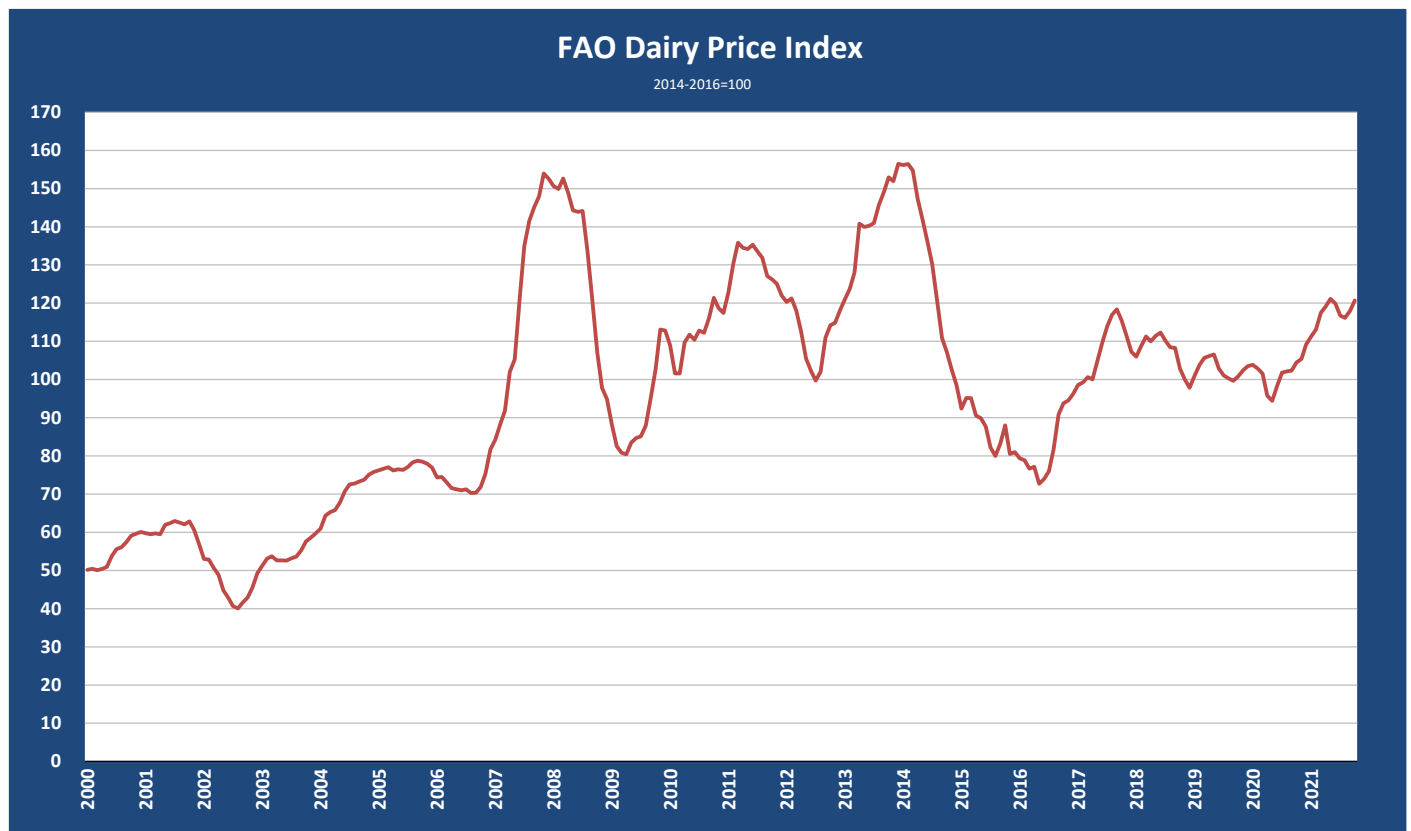
C O N T E N T

Graph/Table	Title	Page
International Dairy Industry		
Graph 1	Price index of dairy products in the international market up to October 2021, as published by the FAO	
Table 1	Volatility per year of the price index of the FAO of dairy products in the international market	
Graph 2	Average Oceania export prices up to October 2021 (USA\$ / ton f.o.b.)	
Table 2	Future prices in US\$ and Rand (\$=R15.27) per ton achieved at global dairy trade auction on 2 November 2021, for delivery in December 2021 to April 2022	
Graph 3	Dairy product prices and future prices in the USA in Rand per kg (R15.27=\$USA)	
Graph 4	Seasonality of unprocessed milk production in the Northern and Southern hemispheres	
Graph 5	Average price of unprocessed milk in the European Union	
Graph 6	Unprocessed milk prices in the USA	
South African Dairy Industry		
Table 3	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 2021	
Table 4	Mass of imports as percentage of the mass of exports of dairy products by South Africa	
Table 5	Total quantity of unprocessed milk purchased in South Africa during the years 2008 to 2020	
Table 6	Unprocessed milk purchases per quarter of each of the years 2009 to 2021	
Table 7	Unprocessed milk purchases per half year in each of the years 2009 to 2020	
Graph 7	Average unprocessed milk purchases per day per month in South Africa in the years 2015 to October 2021	
Table 8	Mass of unprocessed milk purchases in particular months, relative to the purchases in the same months of particular previous years	
Table 9	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 2021	
Table 10	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	

Graph 8	Producer price indices of primary agricultural products in South Africa, from January 2012 to September 2021	
Table 11	Monthly increase in the producer price index of unprocessed milk	
Graph 9	Indices of the prices of unprocessed milk in the period January 2012 to September 2021 and that of, yellow maize and soya and an index of a feed price indicator in the period January 2012 to September 2021	
Table 12	Future prices of yellow maize in South Africa (R/ton) on 24 August 2021 and 25 October 2021, according to SAFEX	
Table 13	Future prices of soya beans in South Africa (R/ton) on 24 August 2021 and 25 October 2021, according to SAFEX	
Table 14	Fertilizer prices in South Africa	
Graph 10	Fertilizer prices in South Africa	
Graph 11	Producer price indices of manufactured food products in South Africa from January 2012 to September 2021	
Graph 12	Producer price index of unprocessed milk and the producer price index of dairy products in South Africa, from January 2012 to September 2021	
Table 15	Increase in producer price indices of particular categories of products which include inputs of the dairy industry, in the year which ended in September 2021	
Table 16	Increase in producer price indices of particular intermediate manufactured products	
Table 17	Changes in the retail sales quantities from the year October 2019 to September 2020, to the year October 2020 to September 2021, and changes in the retail prices from September 2020 to September 2021, of specific dairy products	
Table 18	Changes in the quantities of retail sales of specific dairy products in 2019, 2020 and 2021 in South Africa	
Table 19	The average retail prices of specific dairy products in September 2021 in South Africa, compared to the average retail prices of the products concerned in specific months of 2019 to 2021	
Graph 13	The retail price indices (RPI) of specific dairy products, from January 2015 to September 2021	
Graph 14	The producer price indices (PPI) of unprocessed milk, from January 2015 to September 2021 and the retail price indices (RPI) of fresh milk and UHT milk, from January 2015 to September 2021	
Graph 15	The producer price index (PPI) of unprocessed milk from, January 2015 to September 2021 and the retail price indices (RPI) of yoghurt, maas and pre-packaged cheese, from January 2015 to September 2021	
Table 20	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	

Graph 1¹⁾

PRICE INDEX OF DAIRY PRODUCTS IN THE INTERNATIONAL MARKET UP TO OCTOBER 2021, AS PUBLISHED BY THE FAO



1) Graph as published by the Food and Agricultural Organization (FAO) of the United Nations.

Table 1²⁾

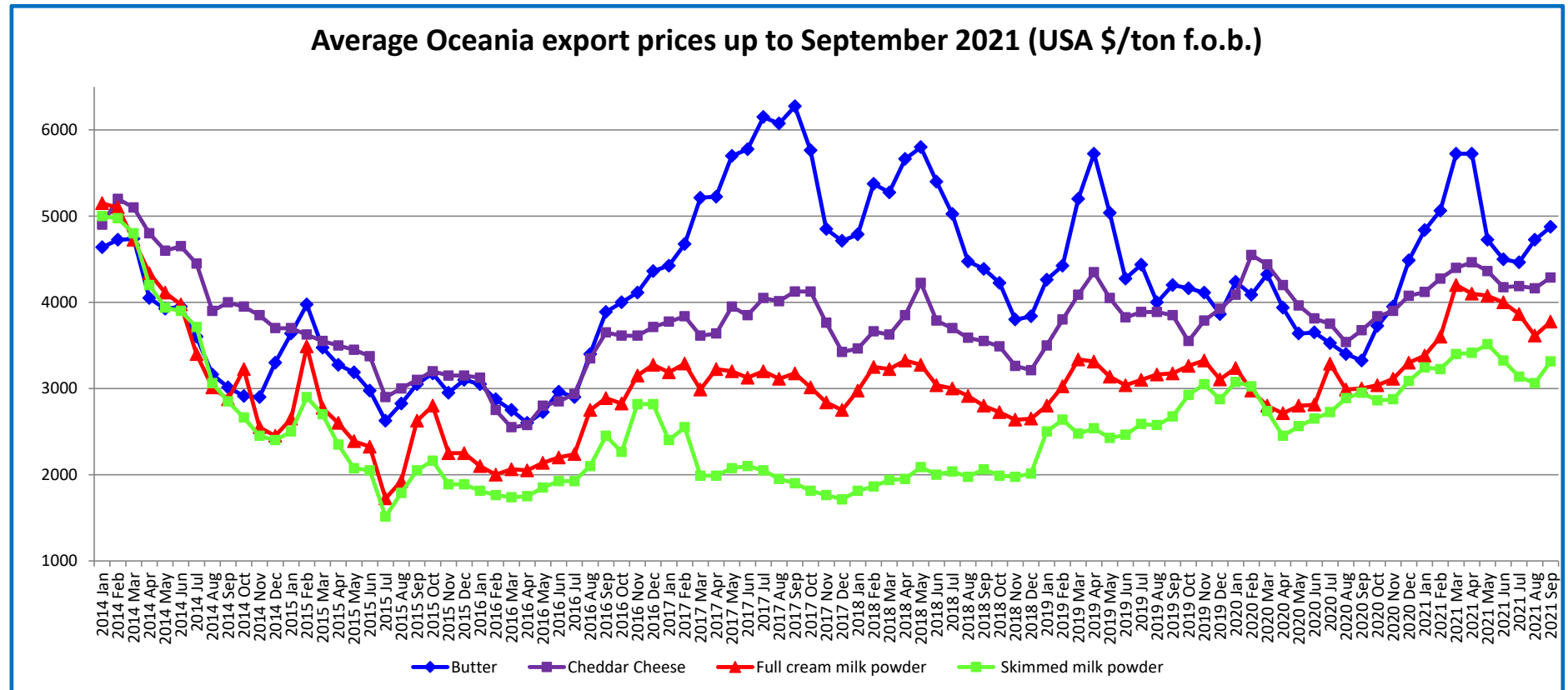
VOLATILITY PER YEAR OF THE PRICE INDEX OF THE FAO OF DAIRY PRODUCTS IN THE INTERNATIONAL MARKET

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	144.6	91.0	58.8
2015	97.3	81.7	19.0
2016	102.4	77.4	32.3
2017	121.8	101.4	20.1
2018	110.3	96.1	14.7
2019	107.2	100.2	7.0
2020	103.8	95.4	8.8
Average	105.4	83.5	26.5
2021 (Jan – Oct)	120.5	110.7	8.9

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

Graph 2³⁾



3) Graph prepared by the Office of SAMPRO based on information published by the USDA on 20 October 2021.

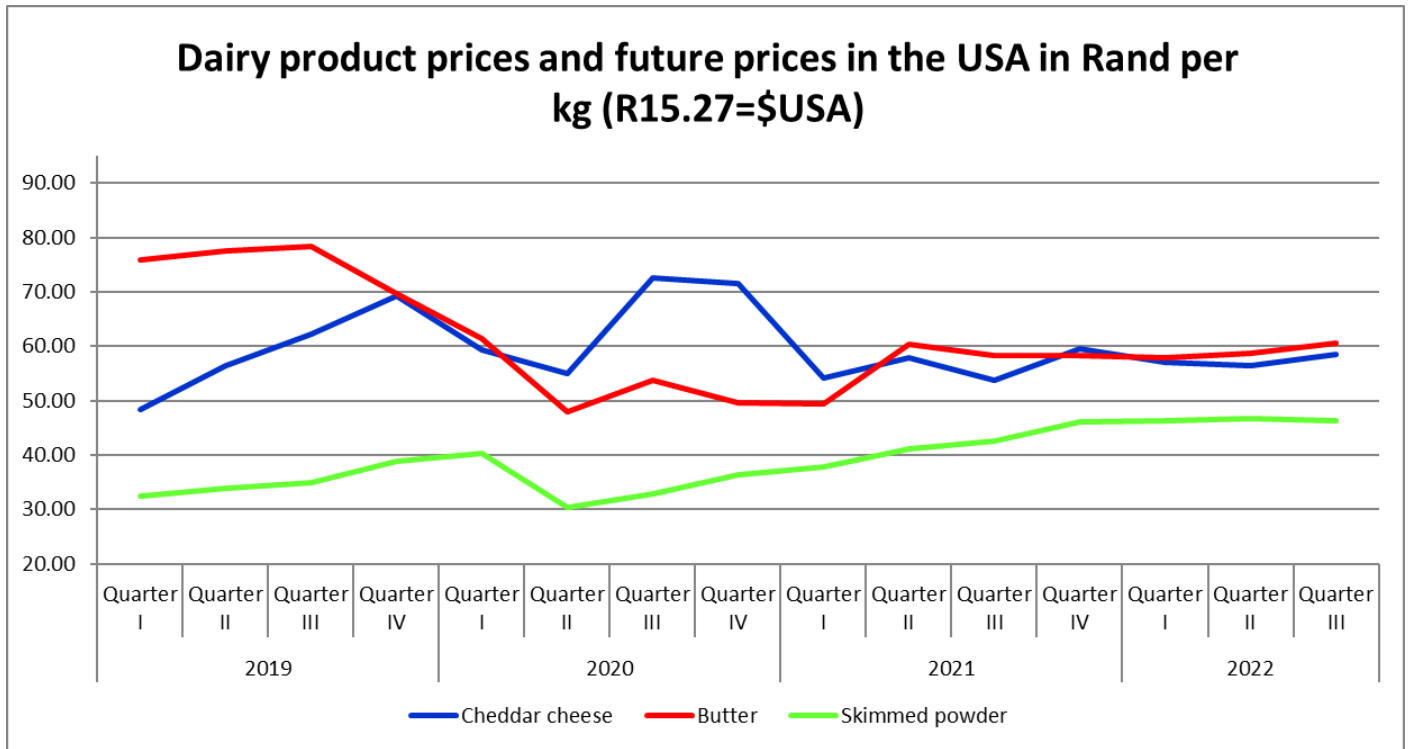
Table 2⁴⁾

FUTURE PRICES IN US\$ AND RAND (\$=R15.27) PER TON ACHIEVED AT GLOBAL DAIRY TRADE AUCTION ON 2 NOVEMBER 2021, FOR DELIVERY IN DECEMBER 2021 TO APRIL 2022

	Dec	Jan	Feb	Mar	Apr
Whole Milk Powder					
PRICE: \$	3 921	3 924	3 901	3 939	3 974
PRICE: R	59 874	59 919	59 568	60 149	60 683
Index	100.0	100.1	99.5	100.5	101.4
Skimmed Milk Powder					
PRICE: \$	3 730	3 633	3 628	3 592	3 585
PRICE: R	56 957	55 476	55 400	54 850	54 743
Index	100.0	97.4	97.3	96.3	96.1
Cheddar					
PRICE: \$	5 017	5 104	5 050	5 124	4 925
PRICE: R	76 610	77 938	77 114	78 243	75 205
Index	100.0	101.7	100.7	102.1	98.2
Butter					
PRICE: \$	5 385	5 280	5 425	5 390	5 345
PRICE: R	82 229	80 626	82 840	82 305	81 618
Index	100.0	98.1	100.7	100.1	99.3

4) Table prepared by the Office of SAMPRO based on the prices as published by "Global Dairy Trade" on 2 November 2021

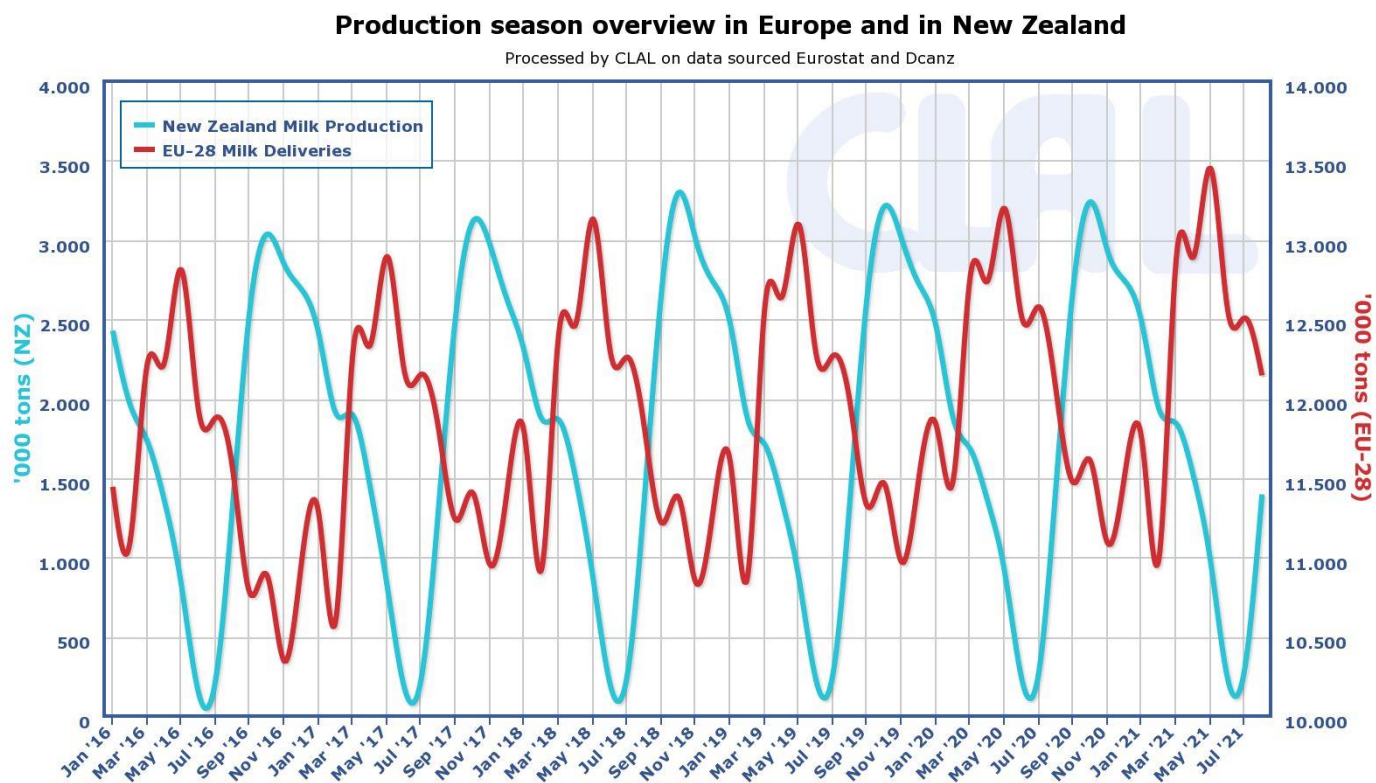
Graph 3⁵⁾



5) Graph prepared by the Office of SAMPRO based on information contained in the United States Department of Agriculture, Livestock, Dairy, and Poultry Outlook, 18 October 2021

Graph 4⁶⁾

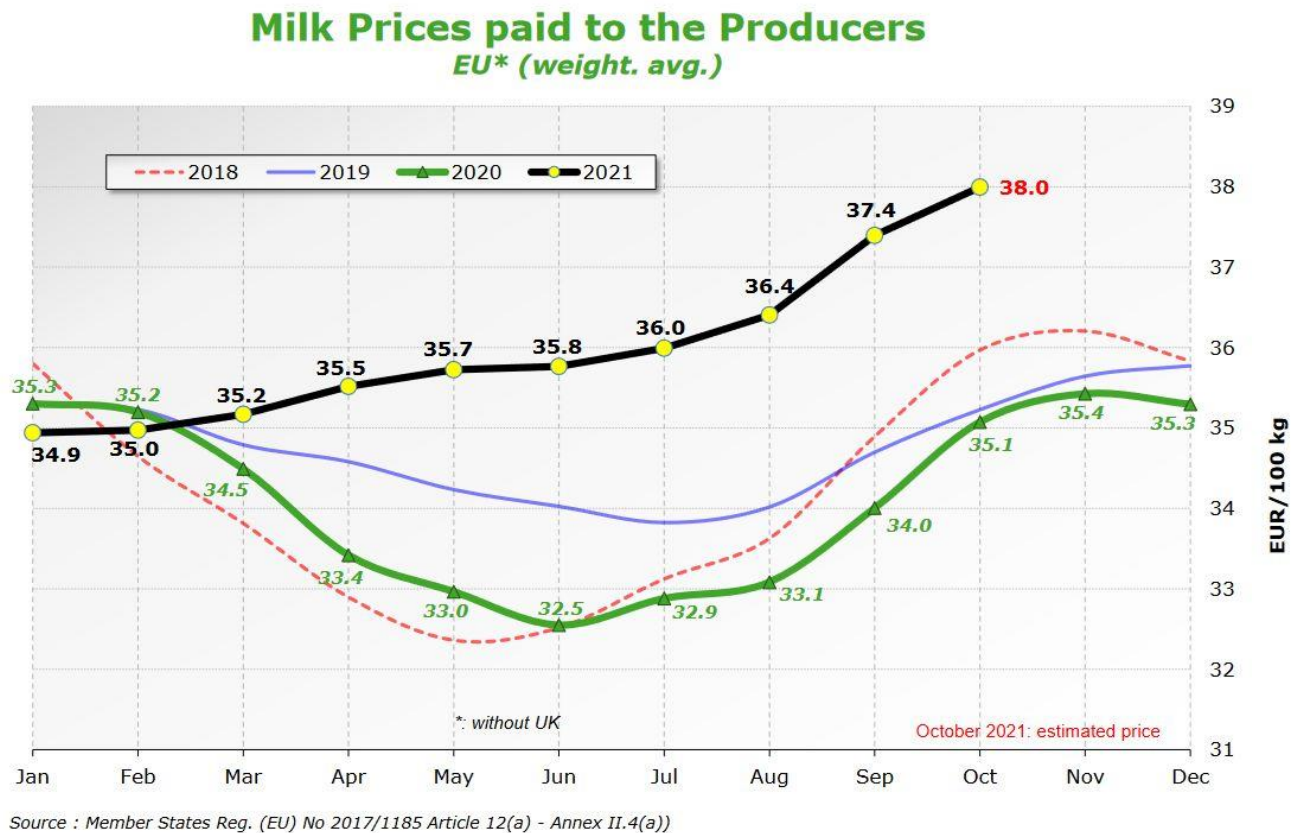
SEASONALITY OF UNPROCESSED MILK PRODUCTION IN THE NORTHERN AND SOUTHERN HEMISPHERES



6) Graph as published by CLAL.it

Graph 5⁷⁾

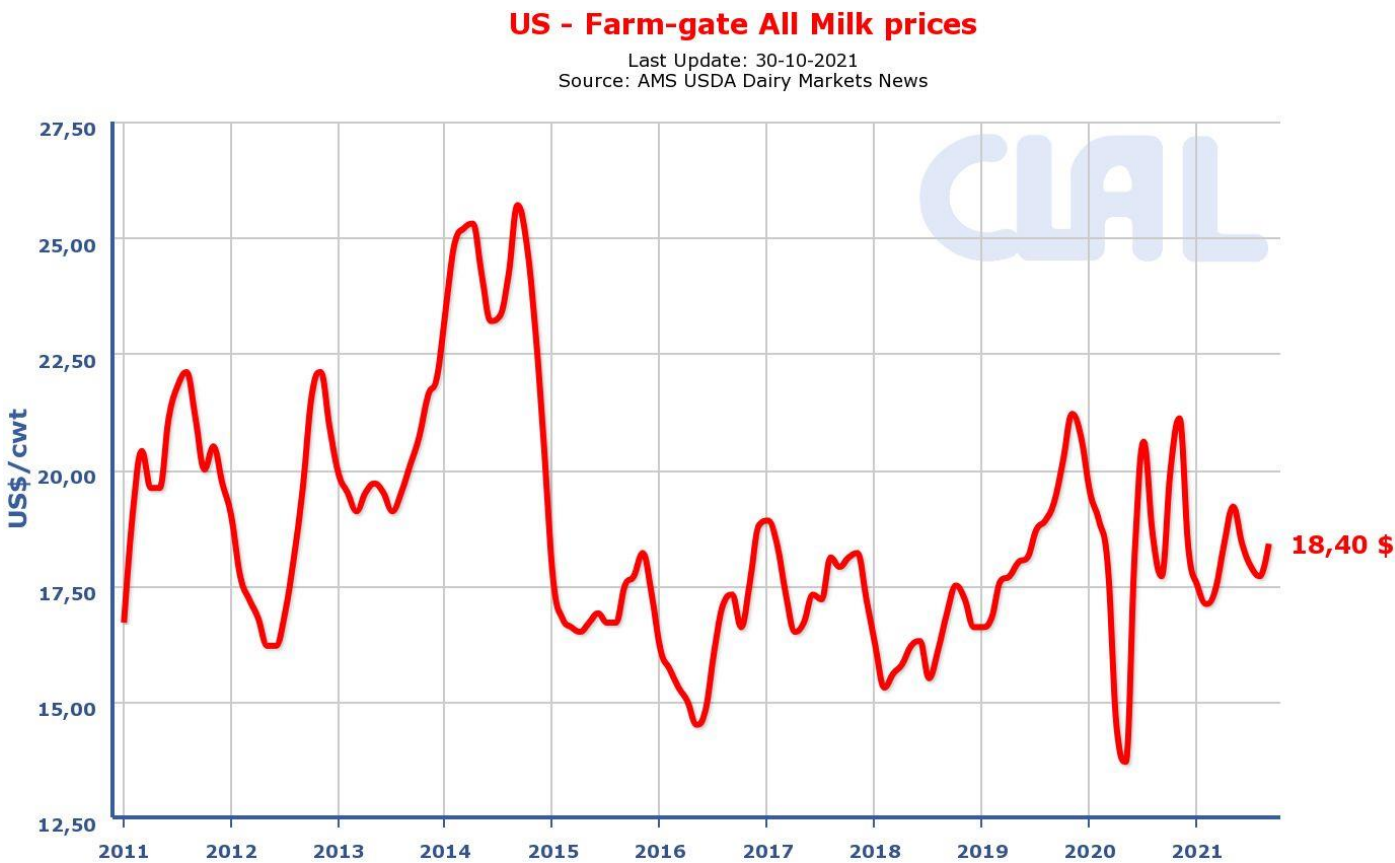
AVERAGE PRICE OF UNPROCESSED MILK IN THE EUROPEAN UNION



7) Graph as published by CLAL.it

Graph 6⁸⁾

UNPROCESSED MILK PRICES IN THE USA



8) Graph as published by CLAL.it

Table 3⁹⁾

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 2021

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 Est	78 929.47	320.6	48 944.53	142.6	127 873.53	216.9

9) Table prepared by the Office of SAMPRO on the basis of information obtained from SARS.
The estimated import quantities in 2021, are calculated on the assumption that the levels of import in the first nine months of 2021, will be maintained during the rest of 2021.
Estimates regarding future imports 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 differ meaningfully.

Table 4¹⁰⁾

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

Heading	Description	2013	2014	2015	2016	2017	2018	2019	2020	2021 Est
04.01	Milk and cream, unsweetened	14.7	21.4	92.5	84.3	217.1	103.7	90.2	26.4	114.8
04.02	Milk, concentrated	46.5	117.3	197.7	196.3	146.4	159.5	227.9	252.8	267.6
04.03	Buttermilk powder, yoghurt	8.2	9.2	16.5	19.7	28.4	27.9	31.7	40.3	37.4
04.04	Whey, whey powder, etc	452.7	507.4	221.3	185.9	192.9	1 741.3	2 917.9	1 257.6	785.8
04.05	Butter, butter spreads and butter oil	266.7	111.4	344.1	396.7	491.2	735.1	355.5	540.6	323.2
04.06	Cheese and curd	286.6	281.2	314.2	330.3	338.7	272.5	252.7	141.7	144.2
TOTAL		112.6	50.6	56.5	115.4	171.7	151.7	167.8	129.7	161.3

10) Table prepared by the Office of SAMPRO on the basis of information obtained from SARS.
The estimated import and export quantities in 2021, are calculated on the assumption that the levels of import and export in the first nine months of 2021, will be maintained during the rest of 2021.
Estimates regarding future imports 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 differ meaningfully.

Table 5¹¹⁾

TOTAL QUANTITY OF UNPROCESSED MILK PURCHASED IN SOUTH AFRICA DURING THE YEARS 2008 TO 2020¹¹⁾

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

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

Table 6¹²⁾UNPROCESSED MILK PURCHASES PER QUARTER OF EACH OF THE YEARS 2009 to 2021 ¹²⁾

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 ¹³⁾	792 708 521		735 670 779		876 495 066					

12) 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

13) The figure in respect of the third quarter of 2021, is an estimated figure.

Table 7¹⁴⁾

UNPROCESSED MILK PURCHASES PER HALF YEAR IN EACH OF THE YEARS 2009 TO 2021

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

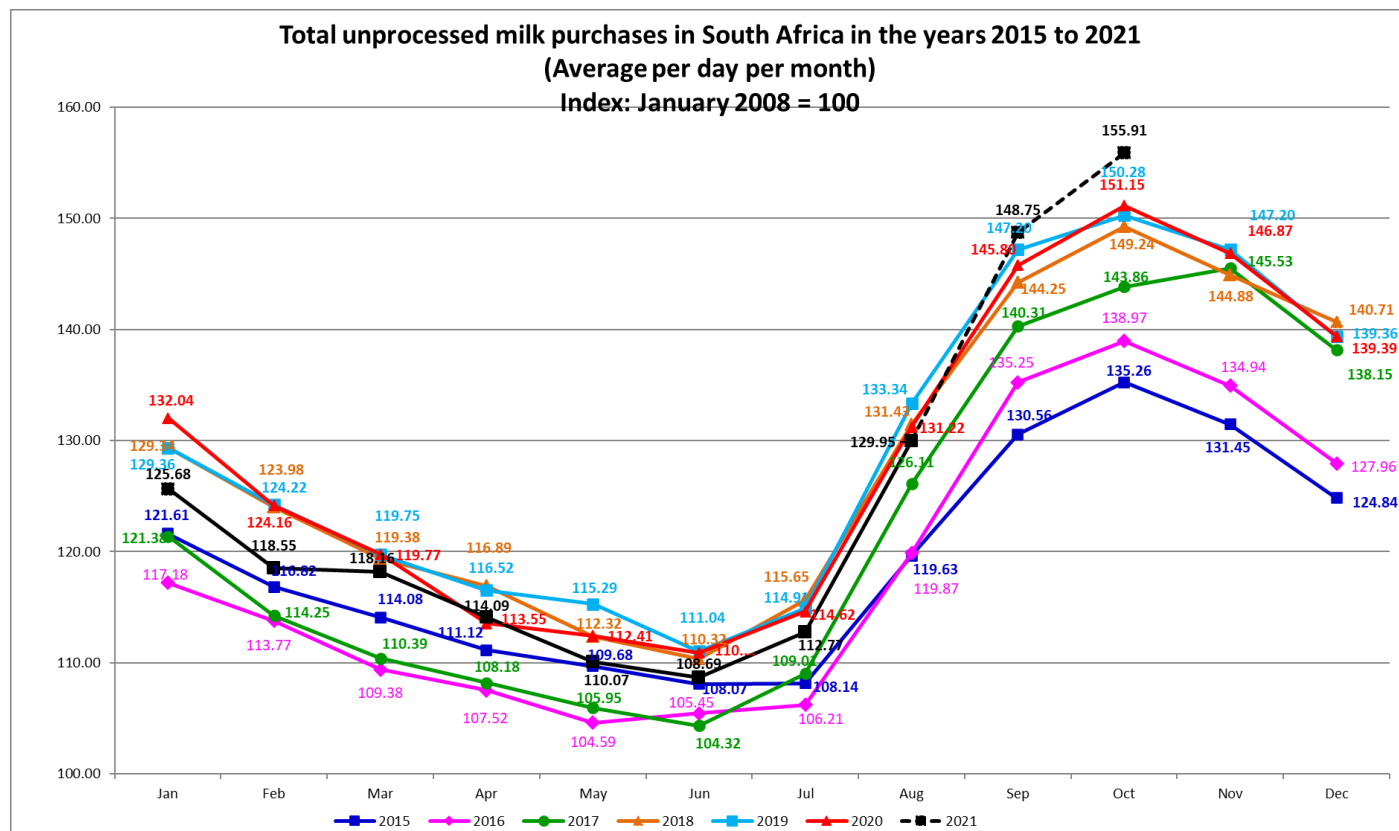
Year	First Half		Second Half		Total	
	Kg	%	Kg	%	Kg	%
2014	1 334 059 437	44.726	1 648 675 160	55.274	2 982 734 597	100.00
2015	1 497 744 268	47.208	1 674 911 502	52.792	3 172 655 770	100.00
2016	1 454 085 606	46.038	1 704 360 784	53.962	3 158 446 390	100.00
2017	1 460 583 324	44.890	1 793 098 757	55.110	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 (Est) ¹⁵⁾	1 528 379 300					

14) 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.

Graph 7¹⁵⁾

AVERAGE UNPROCESSED MILK PURCHASES PER DAY PER MONTH IN SOUTH AFRICA IN THE YEARS 2015 TO OCTOBER 2021



15) 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 August 2021 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. The figures for August and September 2021 are estimated figures.

Table 8¹⁶⁾

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

	Percentage increase
October 2018 relative to October 2017	3.7
November 2018 relative to November 2017	-0.4
December 2018 relative to December 2017	1.9
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	-4.8
February 2021 relative to February 2020	-4.5
March 2021 relative to March 2020	-1.3
April 2021 relative to April 2020	0.5
May 2021 relative to May 2020	-2.1
June 2021 relative to June 2020	-2.0
July 2021 relative to July 2020	-1.6
August 2021 relative to August 2020	-1.0
September 2021 relative to September 2020 (est)	2.0
October 2021 relative to October 2020 (est)	3.2

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

Table 9¹⁷⁾

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 2021

Year	October to December percent	October to February percent	October to April percent	October to June percent
2008/9	5.5	16.9	24.4	25.4
2009/10	3.9	14.6	20.4	21.2
2010/11	5.0	15.6	23.4	23.7
2011/12	5.6	14.5	19.5	18.2
2012/13	6.6	14.9	20.9	20.5
2013/14	5.3	18.0	22.9	21.8
2014/15	4.2	12.9	17.1	19.4
2015/16	7.7	15.9	20.5	22.0
2016/17	7.9	17.8	22.2	24.9
2017/18	4.0	13.8	18.7	23.3
2018/2019	5.7	16.8	21.9	25.6
2019/2020	7.3	17.4	24.4	26.2
Average 2008/9 to 2019/20	5.7	15.8	21.4	22.7
2020/2021 ¹⁹⁾	7.7	21.5	24.5	28.1

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

Table 10¹⁸⁾

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

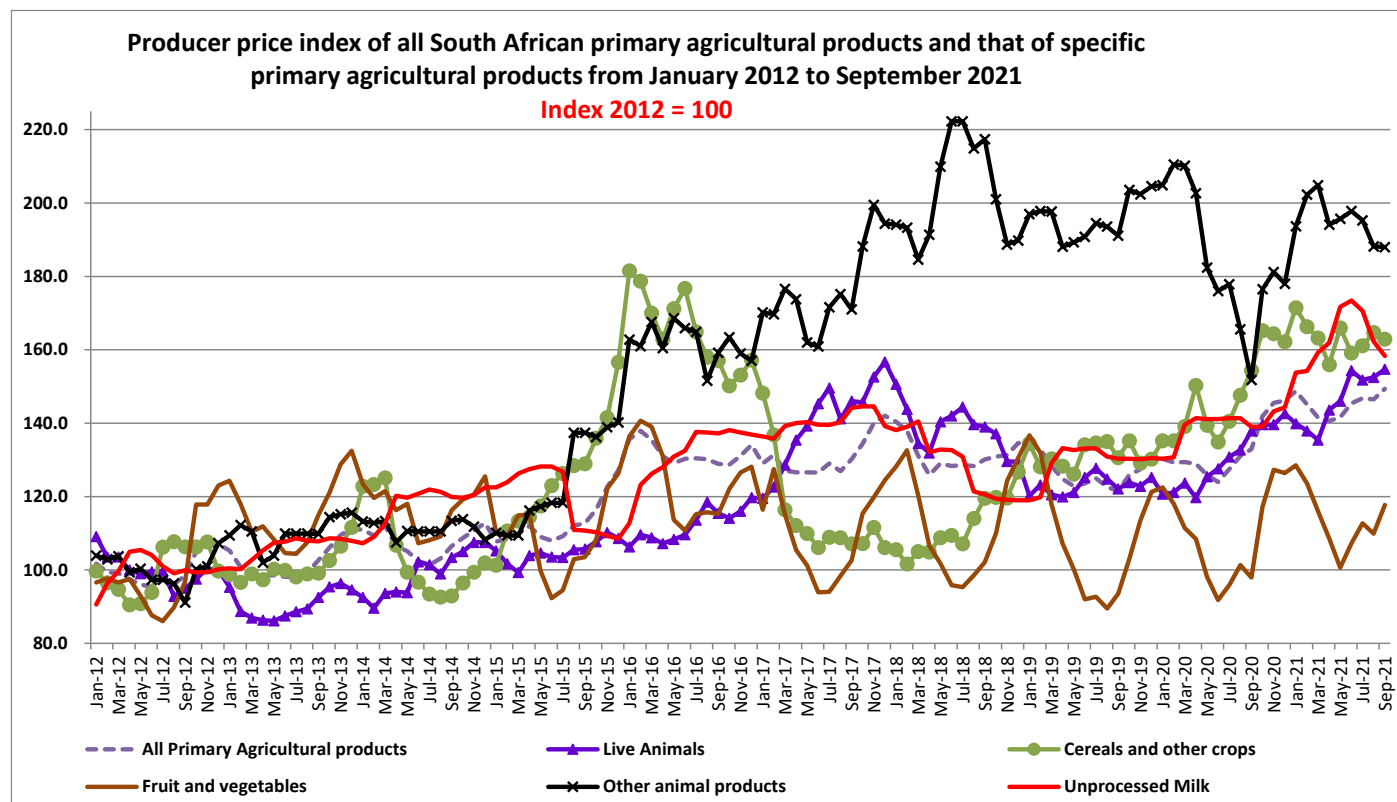
Year	July to August Percent	July to September Percent	July to October Percent
2008	10.7	22.2	24.6
2009	12.4	24.5	29.3
2010	9.7	19.8	24.2
2011	10.6	26.3	28.2
2012	10.3	21.8	25.6
2013	11.4	23.0	26.3
2014	13.0	27.2	32.9
2015	10.6	20.7	25.1
2016	12.7	27.2	30.7
2017	15.9	31.7	34.3
2018	13.7	24.7	29.0
2019	16.0	28.1	30.8
2020	14.5	27.2	31.9
Average 2008 to 2020	12.4	25.0	28.7
2021¹⁹⁾	15.2	31.9	38.2

18) 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.

19) The 2021 figures are estimated figures.

Graph 8²⁰⁾

PRODUCER PRICE INDICES OF PRIMARY AGRICULTURAL PRODUCTS IN SOUTH AFRICA FROM JANUARY 2012 TO SEPTEMBER 2021



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

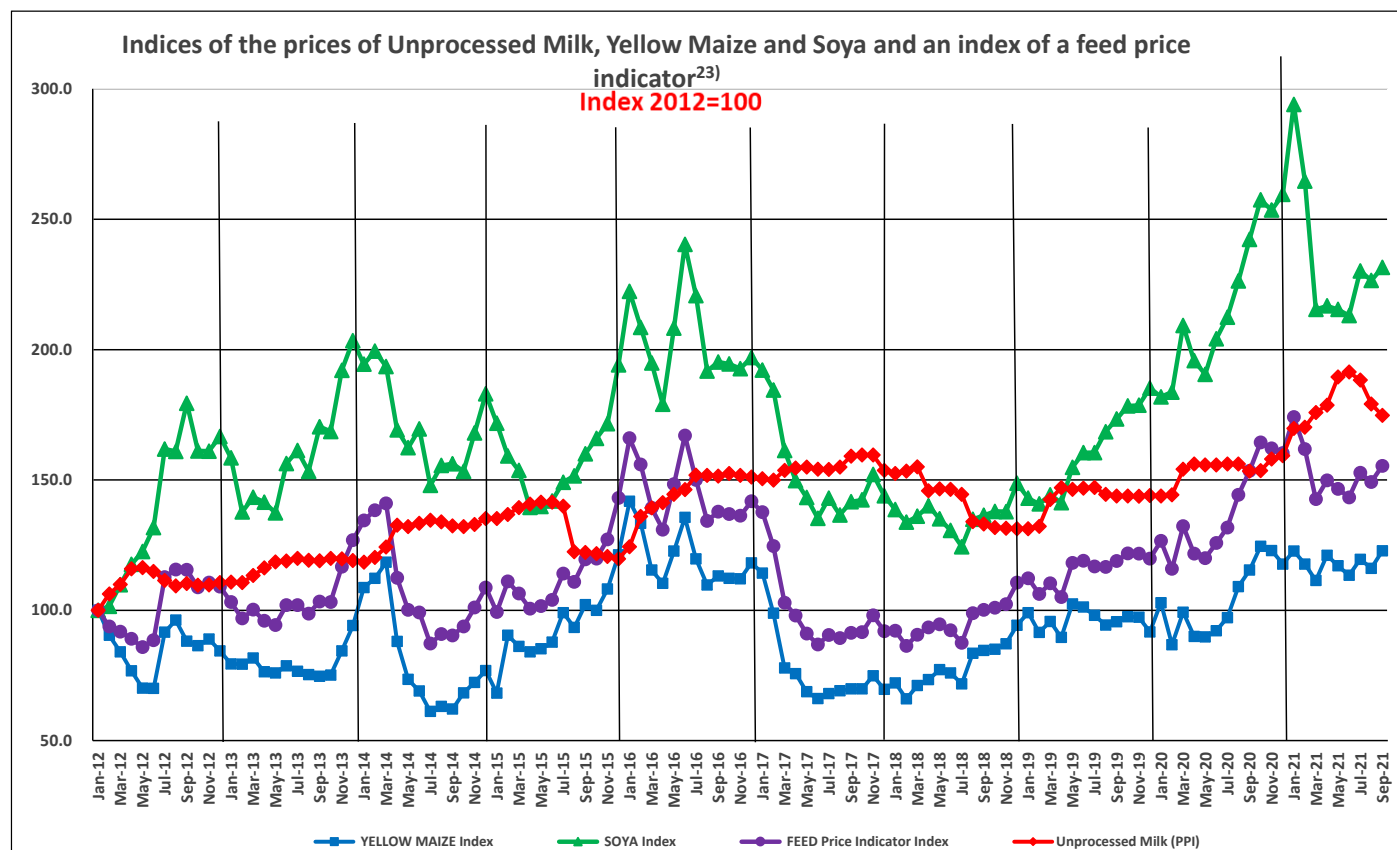
Table 11²¹⁾**MONTHLY INCREASE IN THE PRODUCER PRICE INDEX OF UNPROCESSED MILK**

	Percentage increase
June 2018 relative to May 2018	-0.08
July 2018 relative to June 2018	-1.35
August 2018 relative to July 2018	-7.25
September 2018 relative to August 2018	-0.67
October 2018 relative to September 2018	-0.99
November 2018 relative to October 2018	-0.25
December 2018 relative to November 2018	-0.07
January 2019 relative to December 2018	0
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
August 2019 relative to July 2019	-1.64
September 2019 relative to August 2019	-0.46
October 2019 relative to September 2019	0
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
July 2020 relative to June 2020	0.21
August 2020 relative to July 2020	0
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

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

Graph 9²²⁾

INDICES OF THE PRICES OF UNPROCESSED MILK IN THE PERIOD JANUARY 2012 TO SEPTEMBER 2021 AND THAT OF, YELLOW MAIZE AND SOYA AND AN INDEX OF A FEED PRICE INDICATOR²³⁾ IN THE PERIOD JANUARY 2012 TO SEPTEMBER 2021



**INCREASE IN UNPROCESSED MILK PURCHASES RELATIVE TO PREVIOUS YEAR
(PERCENT)²⁴⁾**

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

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

23) 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.

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

Table 12²⁵⁾

FUTURE PRICES OF YELLOW MAIZE IN SOUTH AFRICA (R/TON) ON 24 AUGUST 2021 AND 25 OCTOBER 2021 ACCORDING TO SAFEX

	A CLOSING BID 24 August 2021 R/Ton	B CLOSING BID 25 October 2021 R/Ton	C Percentage increase from A to B
December 2021	3 491	3 520	0.8
March 2022	3 470	3 493	0.7
May 2022	3 300	3 320	0.6
July 2022		3 337	

Table 13²⁵⁾

FUTURE PRICES OF SOYA BEANS IN SOUTH AFRICA (R/TON) ON 24 AUGUST 2021 AND 25 OCTOBER 2021 ACCORDING TO SAFEX

	A CLOSING BID 24 August 2021 R/Ton	B CLOSING BID 25 October 2021 R/Ton	C Percentage increase from A to B
December 2021	7 838	7 796	-0.5
March 2022	7 860	7 702	-2.0
May 2022	7 600	7 503	-1.3
July 2022		7 569	

25) Table prepared by the Office of SAMPRO based on information as obtained from the SAFEX website on 25 October 2021.

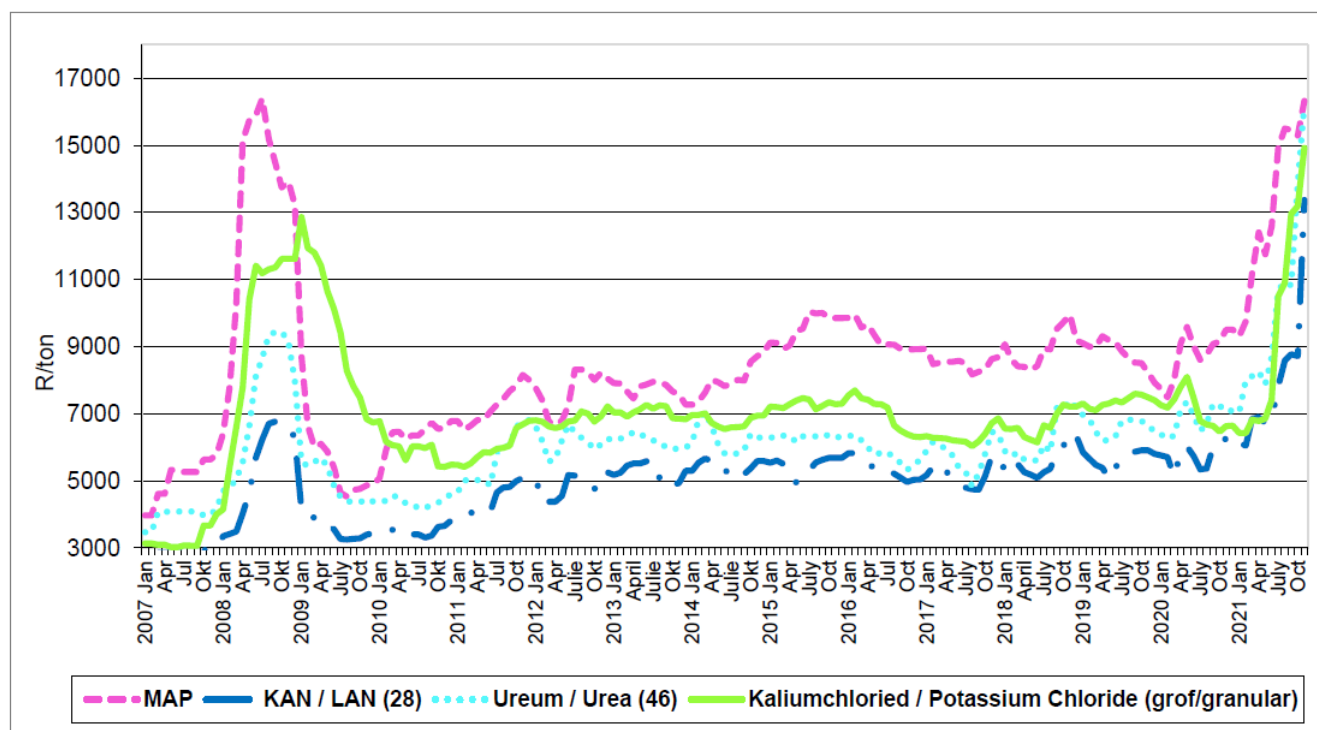
Table 14²⁶⁾**FERTILIZER PRICES IN SOUTH AFRICA**

Fertilizer	October 2021 Rand / Ton	November 2021 Rand / Ton	Percentage increase from Oct- Nov 2021
LAN (28)	8 715	13 367	53.4
Urea (46)	13 878	16 220	16.9
MAP	15 286	16 318	6.8
KCL	13 190	14 920	13.1

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

Graph 10²⁷⁾

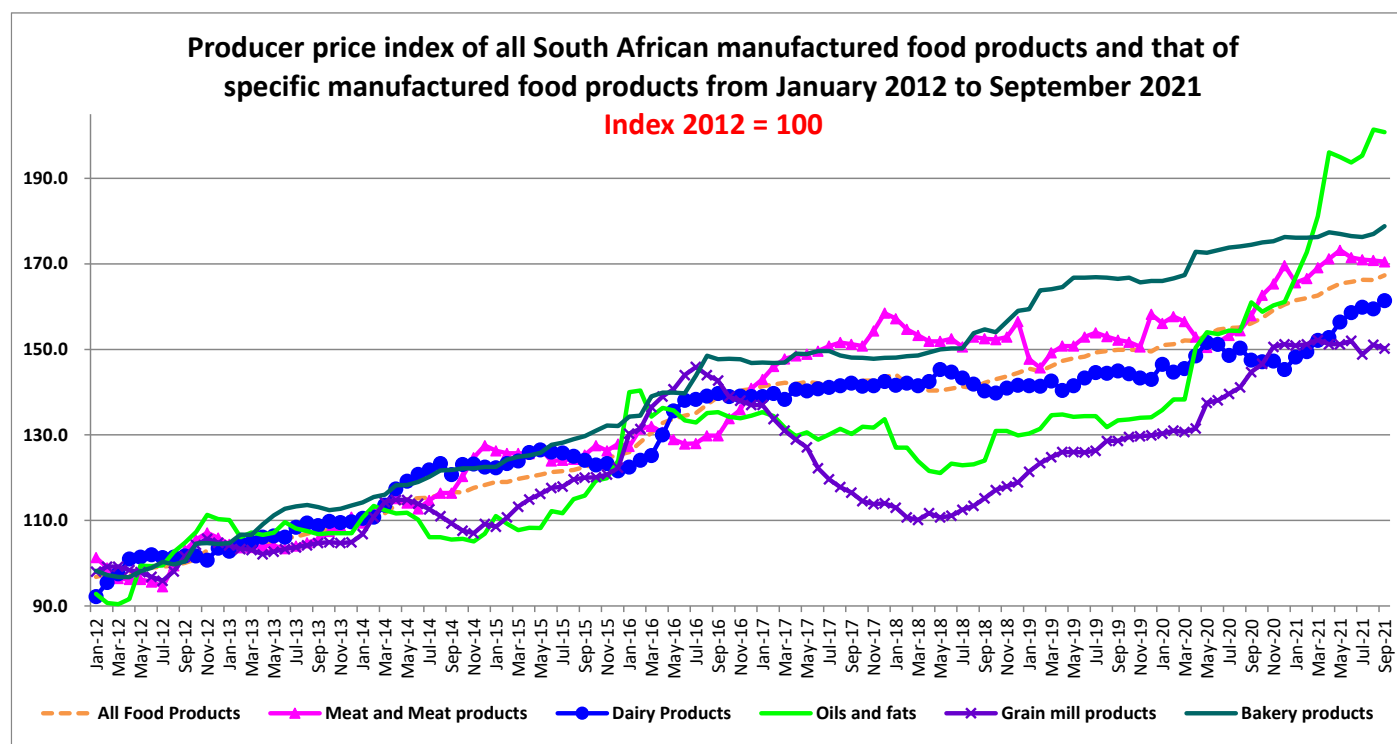
FERTILIZER PRICES IN SOUTH AFRICA



27) Graph published by Grain SA.

Graph 11²⁸⁾

PRODUCER PRICE INDICES OF MANUFACTURED FOOD PRODUCTS IN SOUTH AFRICA FROM JANUARY 2012 TO SEPTEMBER 2021

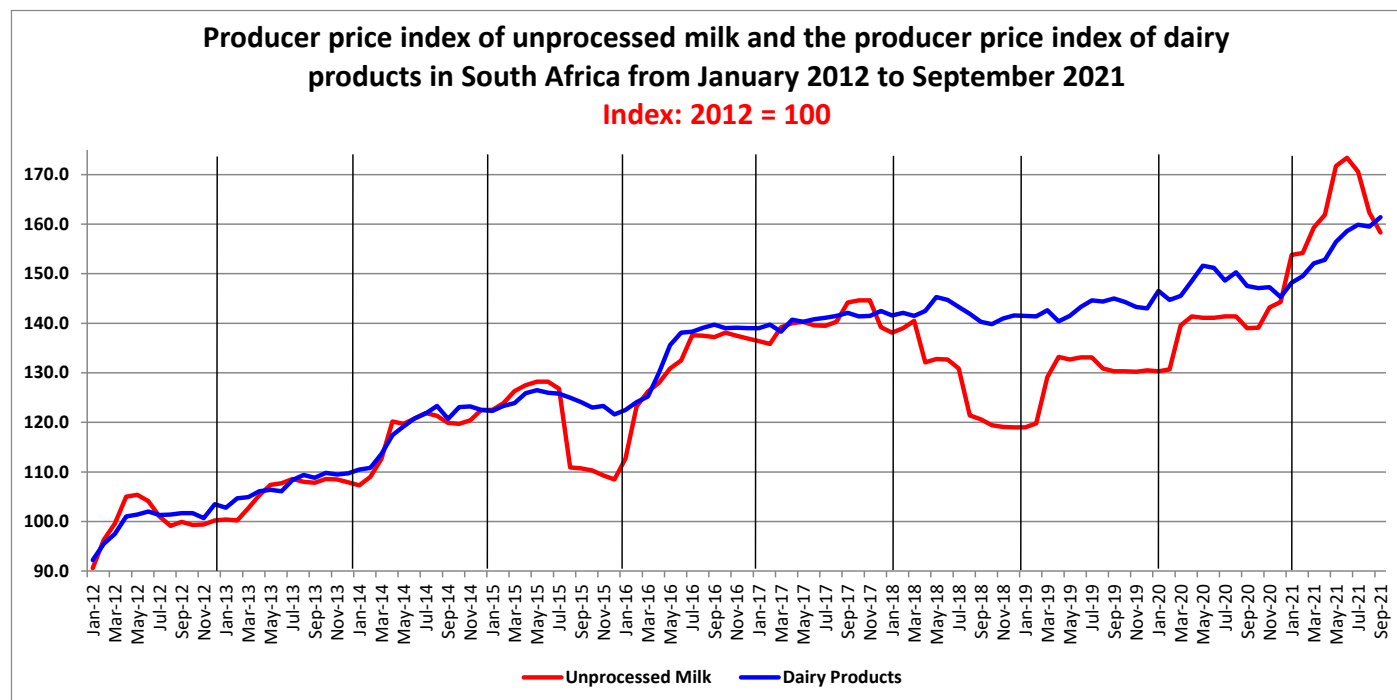


28) Graph prepared by the Office of SAMPRO based on information obtained from Statistics SA.

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 12²⁹⁾

PRODUCER PRICE INDEX OF UNPROCESSED MILK AND THE PRODUCER PRICE INDEX OF DAIRY PRODUCTS IN SOUTH AFRICA, FROM JANUARY 2012 TO SEPTEMBER 2021



29) 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 15³⁰⁾

INCREASE IN PRODUCER PRICE INDICES OF PARTICULAR CATEGORIES OF PRODUCTS WHICH INCLUDE INPUTS OF THE DAIRY INDUSTRY, IN THE YEAR WHICH ENDED IN SEPTEMBER 2021

GROUP OF PRODUCTS	PERCENTAGE INCREASE
Textiles, clothing and footwear	4.6
Textiles	3.5
Clothing	4.9
Footwear	3.9
Paper and printed products	3.5
Coke, petroleum, chemical, rubber and plastic products	15.3
Coal and petroleum products	20.7
Petrol	24.0
Diesel	17.3
Other	20.2
Chemical products	8.2
Rubber and plastic products	15.6
Metals, machinery, equipment and computing equipment	10.8
Structural and fabricated metal products	14.9
General and special purpose machinery	7.7
Household appliances and office machinery	7.2
Electrical machinery and communication and metering equipment	5.6
Electricity and water	23.3
Electricity	26.0
Water	5.2

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

Table 16³¹⁾
**INCREASE IN PRODUCER PRICE INDICES OF PARTICULAR INTERMEDIATE
MANUFACTURED PRODUCTS**

GROUP OF PRODUCTS	PERCENTAGE INCREASE
Intermediate manufactured goods	19.5
Textiles and leather goods	-1.2
Sawmilling and wood	11.7
Chemicals, rubber and plastic products	31.9
Basic and other chemical	44.1
Plastic products	22.2
Rubber products	14.0
Glass and glass products	12.0
Basic and fabricated metals	18.2
Basic iron and steel	41.8
Basic precious and non-ferrous metals and castings	-7.2
Recycling and manufacturing n.e.c.	11.6

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

Table 17³²⁾

CHANGES IN THE RETAIL SALES QUANTITIES FROM THE YEAR OCTOBER 2019 TO SEPTEMBER 2020, TO THE YEAR OCTOBER 2020 TO SEPTEMBER 2021, AND CHANGES IN THE RETAIL PRICES FROM SEPTEMBER 2020 TO SEPTEMBER 2021 OF SPECIFIC DAIRY PRODUCTS

PRODUCT	CHANGE IN DEMAND (QUANTITY) PERCENT	CHANGE IN RETAIL PRICES PERCENT
FRESH MILK	-7.4	8.1
LONG LIFE MILK (UHT MILK)	-5.2	3.8
FLAVOURED MILK	-1.2	10.1
YOGHURT	-3.1	7.5
MAAS	-3.7	5.4
PRE-PACKAGED CHEESE	0.1	5.2
CREAM CHEESE	-5.0	8.9
BUTTER	-2.8	-1.3
CREAM	-0.7	4.4

32) 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 18³³⁾

CHANGES IN THE QUANTITIES OF RETAIL SALES OF SPECIFIC DAIRY PRODUCTS IN 2019, 2020 AND 2021 IN SOUTH AFRICA

PRODUCT	Sales in the month of September 2021 versus the sales in the month of September 2020	Sales in the 3 months from July 2021 to September 2021 versus the sales in the 3 months from July 2020 to September 2020	Sales in the 6 months from April 2021 to September 2021 versus the sales in the 6 months from April 2020 to September 2020	Sales in the 9 months from January 2021 to September 2021 versus the sales in the 9 months from January 2020 to September 2020	Sales in the 12 months from August 2020 to September 2021 versus the sales in the 12 months from August 2019 to September 2020
	percent		percent		percent
Fresh Milk	-7.2	-7.7	-5.9	-6.7	-7.4
UHT milk	-5.4	0.4	-7.7	-7.1	-5.2
Flavoured milk	1.2	2.0	4.1	2.8	-1.2
Yoghurt	-10.0	-11.4	-9.7	-6.5	-3.1
Maas	-4.9	-8.0	-7.7	-6.1	-3.7
Pre-packaged cheese	1.0	-1.3	-3.9	-2.9	0.1
Cream cheese	-3.1	-5.3	-9.4	-6.5	-5.0
Butter	5.2	-2.0	-9.7	-4.2	-2.8
Cream	-6.2	-5.8	-9.7	-3.6	-0.7

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 19³⁴⁾

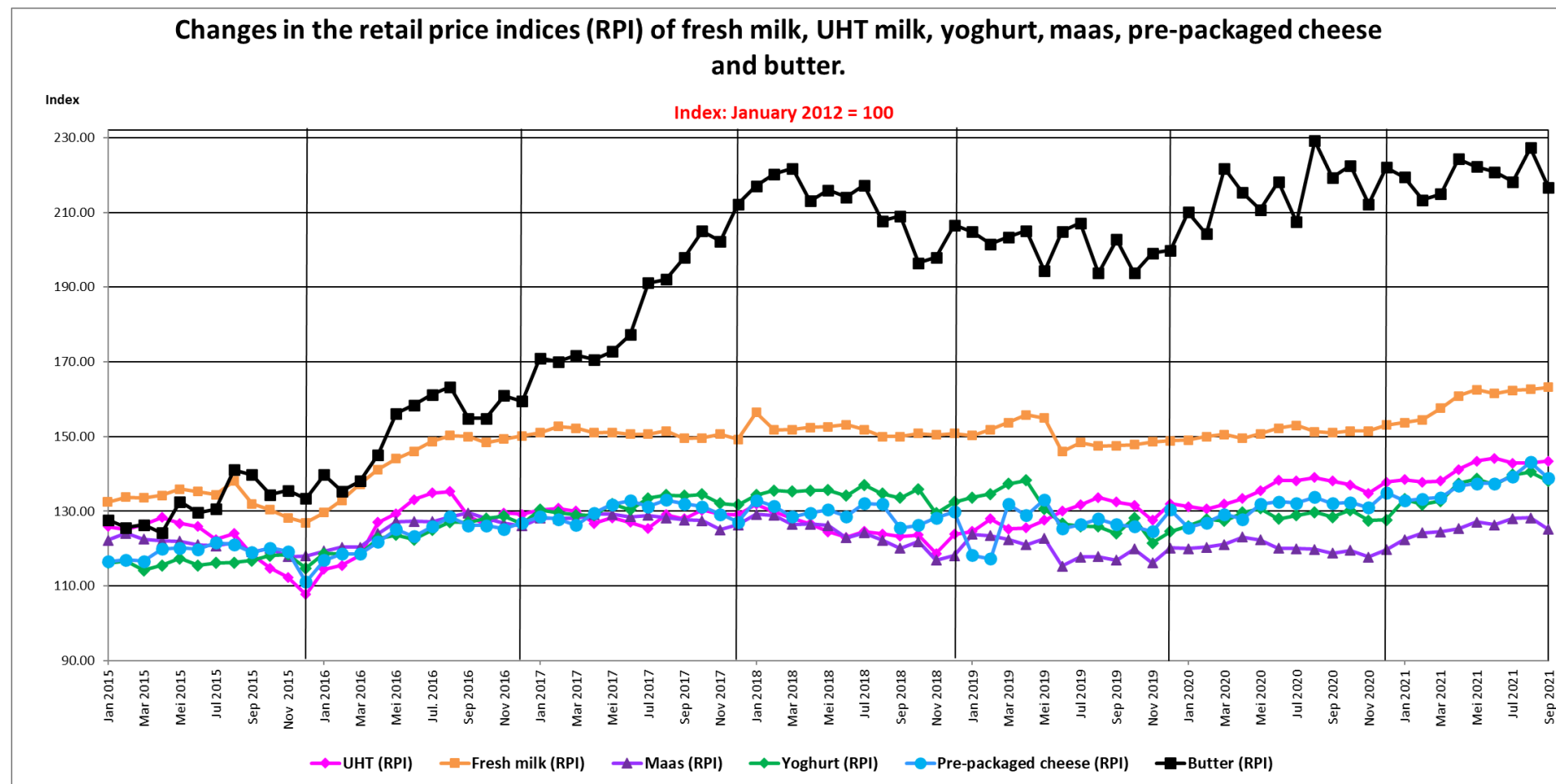
THE AVERAGE RETAIL PRICES OF SPECIFIC DAIRY PRODUCTS IN SEPTEMBER 2021 IN SOUTH AFRICA, COMPARED TO THE AVERAGE RETAIL PRICES OF THE PRODUCTS CONCERNED IN SPECIFIC MONTHS OF 2019 TO 2021.

PRODUCT	September 2021 versus August 2021 (1 month ago)	September 2021 versus July 2021 (3 months ago)	September 2021 versus April 2021 (6 months ago)	September 2021 versus January 2021 (9 months ago)	September 2021 versus September 2020 (12 months ago)	September 2021 versus April 2020 (18 months ago)	September 2021 versus September 2019 (24 months ago)
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Fresh Milk	0.4	1.1	3.6	6.6	8.1	8.4	10.6
UHT milk	0.3	-0.6	3.9	4.1	3.8	8.7	8.3
Flavoured milk	2.4	1.0	10.5	8.5	10.1	12.5	11.4
Yoghurt	-1.7	0.7	4.0	8.1	7.5	8.4	11.4
Maas	-2.4	-1.0	0.5	4.5	5.4	3.3	7.0
Pre-packaged cheese	-3.0	1.0	3.8	2.9	5.2	7.5	9.8
Cream cheese	-1.7	-0.5	1.1	4.9	8.9	13.8	18.4
Butter	-4.7	-1.9	0.8	-2.5	-1.3	-2.3	6.8
Cream	-1.0	0.5	3.3	1.6	4.4	4.6	6.9

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.

Graph 13³⁵⁾

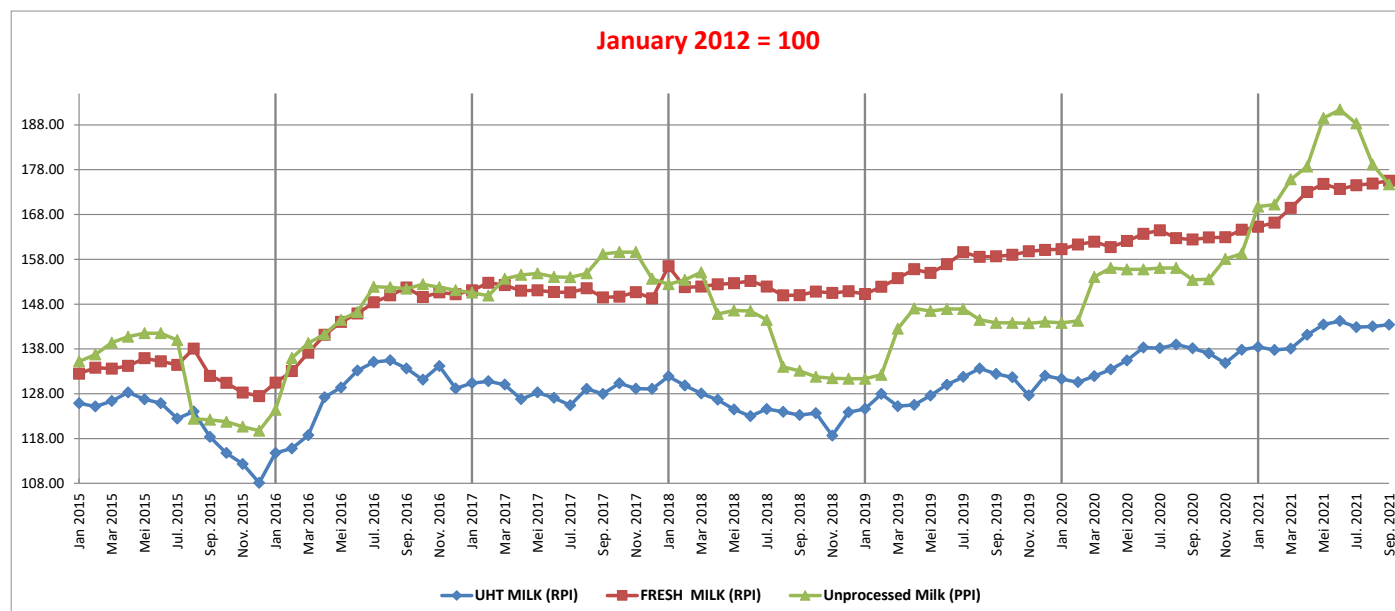
THE RETAIL PRICE INDICES (RPI) OF SPECIFIC DAIRY PRODUCTS, FROM JANUARY 2015 TO SEPTEMBER 2021



35) 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 14³⁶⁾

THE PRODUCER PRICE INDEX (PPI) OF UNPROCESSED MILK, FROM JANUARY 2015 TO SEPTEMBER 2021 AND THE RETAIL PRICE INDICES (RPI) OF FRESH MILK AND UHT MILK, FROM JANUARY 2015 TO SEPTEMBER 2021



**INCREASE IN THE QUANTITY OF UNPROCESSED MILK PURCHASES
RELATIVE TO PREVIOUS YEAR (PERCENT)³⁷⁾**

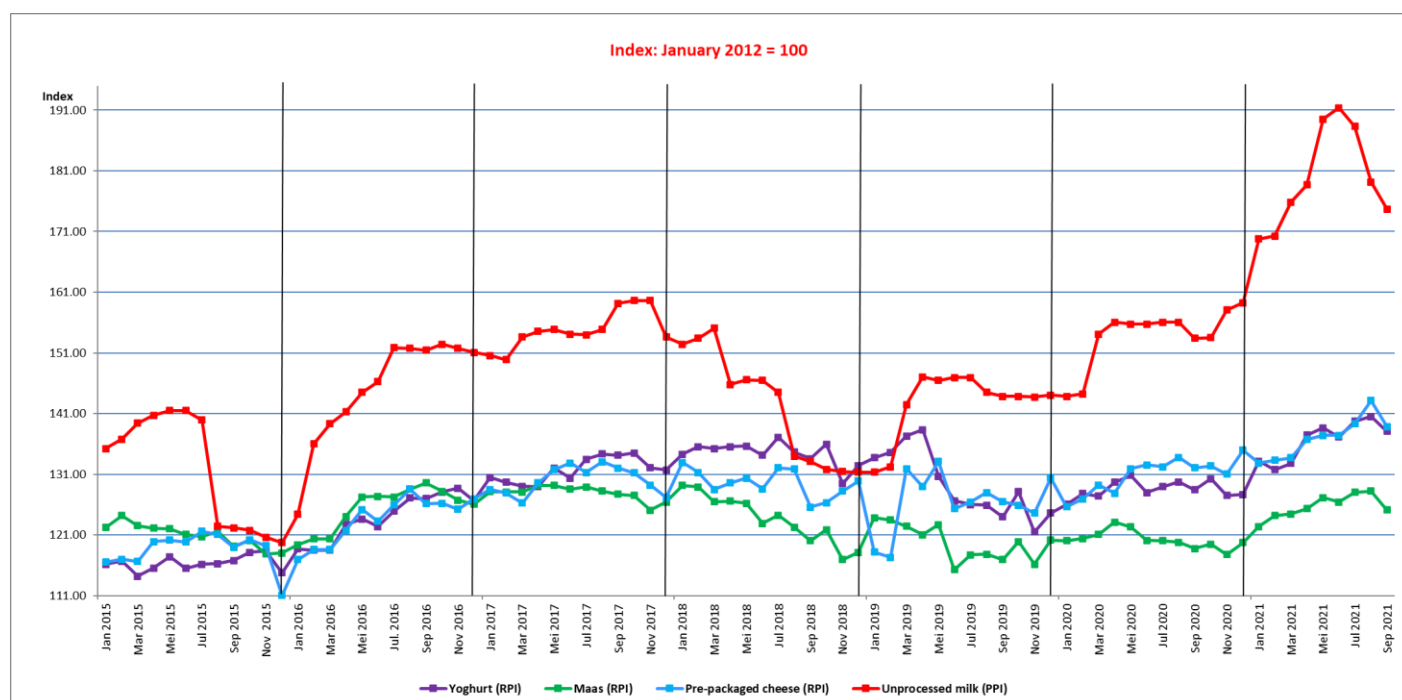
2015	2016	2017	2018	2019	2020
6.37	-0.45	3.02	4.82	0.65	-0.16

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

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

Graph 15³⁸⁾

THE PRODUCER PRICE INDEX (PPI) OF UNPROCESSED MILK, JANUARY 2015 TO SEPTEMBER 2021 AND THE RETAIL PRICE INDICES (RPI) OF YOGHURT, MAAS AND PRE-PACKAGED CHEESE, FROM JANUARY 2015 TO SEPTEMBER 2021



INCREASE IN THE QUANTITY OF UNPROCESSED MILK PURCHASES
RELATIVE TO PREVIOUS YEAR (PERCENT)³⁹⁾

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

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

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

Table 20⁴⁰⁾

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 ⁴¹⁾		
	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
Average	7.5	-0.5	4.1
2021 (Jan – Sep)	-3.8	-3.1	-3.4

40) 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.

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