



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

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## **SYNOPSIS**

*The low levels of volatility of the dairy price index of the Food and Agricultural Organization (FAO), in 2019 and 2020, is indicative that in the recent past, the supply of and demand for dairy products in the international market was, to a high extent, in balance.*

*The FAO dairy price index in February 2021 is 9.8 percent higher than in February 2020, 8.8 percent higher than in February 2019 and 3.8 percent higher than in February 2018.*

*The future prices for important dairy products recorded at the Global Dairy Trade Auction on 2 March 2021, are considered higher than the prices achieved at the previous auction, but the prices for delivery in April 2021 to August 2021, do not show an upward trend.*

*Different factors exist which can impact, in the coming months, on the international supply of and demand for 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 and which can disrupt the international trade in respect of dairy and other products;*
- *Future weather conditions and its impact on the supply of raw milk and thus on the supply of dairy products. In the next few months, weather conditions in the Northern hemisphere, will be very important, as the peak production season of the Northern hemisphere, commenced at the end of the first quarter of the year; and*
- *The international trade and other disputes.*

*In 2020 and in the situation created by COVID-19 and the lockdown measures of the Government, the performance in the South African retail market of specific dairy products namely, UHT (long life) milk, yoghurt, pre-packaged cheese, cream cheese, butter and cream, improved relative to the performance in 2019, while the opposite is true in respect of fresh and flavoured milk.*

*In the quarter which ended in December 2020:*

- *The retail sales quantities of six of the nine dairy products of which the performance in the retail market is monitored, were higher than in the same quarter of 2019; and*
- *The retail sales prices of seven of the nine dairy products concerned, increased;*

## **SYNOPSIS (continued)**

*The position described in the previous two paragraphs, cannot be ascribed to the macro-economic fundamentals namely an increase in the gross domestic product of South Africa and increased consumer income, as in 2020, there was a significant drop in economic activity in South Africa due to COVID-19 and measures to curb the spread of COVID-19. Clearly, the performance of specific dairy products in the very unusual situation created by COVID-19, is the result of changed behaviour of significant segments of the consumer market. In this regard, the role of individual members of the dairy industry and of the organised dairy industry (especially the work of the Consumer Education Project of Milk SA, the Dairy Standard Agency and the Regulations and Standards Project of Milk SA) to position dairy products as healthy, nutritious, safe and tasty foods, and as foods with integrity, should be acknowledged. Obviously, it is not reasonable to assume that:*

- *The changed consumer behaviour and preferences will continue unaltered as the circumstances which created, or contributed to the changes in consumer behaviour and preferences, will likely diminish, but the speed at which it will diminish, is unknown; and*
- *The lower level of economic activity in South Africa resulting from COVID-19 and of which the full extent will only be known later, cannot impact negatively on the demand for food products including dairy products.*

*The estimated production of raw milk in South Africa in 2020, was 0.60 percent lower than in 2019, 0.04 percent higher than in 2018 and 4.8 percent higher than in 2017. The decrease from 2019, to 2020, is the result of lower production in ten of the twelve months of 2020.*

*The lower estimated production of raw 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 raw milk, which existed in 2020. Essentially this position discouraged optimistic views about the future demand for dairy products and the future demand for raw milk, and thus the justification for stimulation of production of raw 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 raw milk which took place.*

## **SYNOPSIS (continued)**

*From December 2020 to January 2021, the producer price index of raw milk increased by 6.58 percent, to a level 18.0 percent higher than in January 2020 and 29.3 percent higher than in January 2019. Notwithstanding this increase and due to the sharp increase of the index of feed price indication, the relationship between the producer price index of raw milk and the index of the feed price indicator, remained unfavourable. In January 2021, the producer price index of raw milk was 3.7 percent higher than the producer price index of dairy products, while in the previous 37 months, it was at lower levels than that of dairy products.*

*The information available in February 2021, shows that most of the dairy products performed well in the South African retail market in 2020 and that, in response to the growth of the demand for the dairy products concerned and against the background of the normal seasonal decline in the production of raw milk, as well as the sharp increase of the index of the feed price indicator, the producer price index of raw milk increased much more than the producer price index of dairy products. Also, the available information shows that the increase in feed prices eroded the encouragement for higher production offered by the higher raw milk prices and that, in the nine years which ended in December 2020, the retail prices of most dairy products increased less than the price of raw milk, although the last mentioned, is more subject to fluctuations than the retail prices of most of the dairy products, due to the reasons explained in this report.*

*In the next few months, the South African dairy industry will have to deal with uncertainty regarding the future demand for dairy products due to:*

- *The uncertainty regarding the future influence of COVID-19; and*
- *The uncertainty about the impact of higher prices for dairy products on the sales quantities of dairy products, amidst the lower level of economic activity in South Africa and against the background of the fact that the increase in the producer price index of raw milk up to January 2021, was higher than the increase in the producer price index of dairy products, while the increase of the producer price index of raw milk, does not compare favourably with the increase in the index of the feed price indicator.*

## **Introduction**

1. This report presents a summary of information regarding market signals for the 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 raw 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.

## **The International Markets for Dairy Products and Raw Milk Markets in Major Dairy Countries**

4. The FAO<sup>1)</sup> 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, and the other dairy products like UHT milk, yoghurt, maas and whey powder, are not included in the basket.
5. In 2018, the FAO dairy price index increased with 5.94 percent from 106.0 in January to 112.3 in June, and from June to December, it decreased with 12.9 percent to 97.8.
6. From December 2018 to May 2019, the price index of the FAO dairy price index increased with 8.9 percent to a level of 106.6 and from May 2019 to September 2019, it decreased with 6.5 percent to a level of 99.6. According to the FAO, this decrease was the result of lower cheese prices which offset the higher prices of milk powders.
7. From September 2019 to January 2020, the FAO dairy price index increased with 4.2 percent from 99.6 to 103.8, and from January 2020 to May 2020, it decreased with 9.0 percent to 94.4. According to the FAO, this decrease reflected “increased export availabilities and mandatory inventories amid weak import demand”. The FAO also stated that:

*“With milk production in the northern hemisphere normally rising at this time of the year, diminished restaurant sales and reduced demand from food manufacturers also weighs on prices. By contrast, price quotations for cheese rebounded moderately on account of limited spot supplies from Oceania, where production is seasonally declining.”*

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1) Food and Agricultural Organization of the United Nations.

8. From May 2020 to February 2021 (the latest available information is in respect of February), the FAO dairy price index increased with 19.7 percent from 94.4 to 113.0, and the last mentioned level is 9.8 percent higher than in February 2020, 8.8 percent higher than in February 2019, and 3.8 percent higher than in February 2018. In respect of the increase from January 2021 to February 2021, of 1.7 percent, the FAO stated on 5 March 2021:

*“The FAO Dairy Price Index averaged 113.0 points in February, up to 1.9 points (1.7 percent) from January, rising for the ninth consecutive month and nearing a 40-month high. In February, international price quotations for butter rose, underpinned by firm imports by China amidst limited export supplies from Western Europe due to a surge in internal demand in view of the upcoming Spring holidays. Quotations for whole milk powder (WMP) increased due to high import purchases and concerns over potentially lower export supplies in New Zealand stemming from dry weather conditions. Skim milk powder prices also increased, reflecting low stocks and tight export availabilities in Europe. By contrast, reduced demand for spot supplies, coupled with high inventories in the United States of America, weighed on cheese quotations.”*

9. As shown in the previous four paragraphs, the price index for dairy products of the FAO frequently changed.
10. 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 is 26.3 percent. (See Table 1 of Annexure A)
11. 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 extent of volatility in 2019 of 7.0 percent and in 2020 of 10.5 percent, is indicative that in the recent past, the supply of dairy products in the international market, was, to a high extent, in balance with the demand for dairy products.
12. 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 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. The considerable difference between the prices of the different dairy products, which occurred in 2017, 2018 and the first half of 2019, disappeared due to especially the reduction of the prices of butter and cheese and the increase in the price of skimmed milk powder, but from December 2020 to February 2021, the price of butter increased more than that of the other dairy products. (See Graph 2 of Annexure A).

13. The future prices of dairy products on 2 March 2021, achieved at the Global Dairy Trade Auction, are considerably higher than the prices achieved at the previous auction, but the prices achieved on 2 March 2021 for delivery in April 2021 to August 2021, do not show an upward trend. The changes of the prices of the dairy products achieved at the Global Dairy Trade Auction on 2 March 2021, for delivery in April 2021 to August 2021, are as follows:
- The price of full cream milk powder moves sideways within a band of prices of which the highest is 1.8 percent higher than the lowest;
  - The price of skimmed milk powder decreases with 4.6 percent from April 2021 to May 2021, from May 2021 to July 2021 it increases with 6.0 percent and from July 2021 to August 2021, it decreases with 0.5 percent, to a level 0.5 percent higher than in April 2021;
  - The price of cheddar cheese moves sideways from April 2021 to June 2021, within a band of prices of which the highest is 3.1 percent higher than the lowest and from June 2021 to July 2021, it decreases with 5.9 percent to a level 4.0 percent lower than in April 2021; and
  - The price of butter decreases from May 2021 to June 2021, with 5.3 percent and from June 2021 to August 2021, it moves sideways within a band of prices of which the highest is 3.8 percent higher than the lowest. (See Table 2 of Annexure A).
14. The expectations regarding future prices of dairy products in the USA of the Department of Agriculture of the USA, published on 16 February 2021, indicates in respect of cheddar cheese, a drop from the last quarter of 2020 to the first quarter of 2021, followed by a sideways movement in the rest of 2021. In respect of butter, the expectation is that the price will increase from the first quarter of 2021, to the third quarter of 2021, but it will remain lower than the prices recorded in 2019 and the first quarter of 2020. The expectation in respect of skimmed milk powder is that the price will move sideways from the first quarter of 2021, to the last quarter of 2021. (See Graph 3 of Annexure A).
15. 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;
  - Future weather conditions and its impact on the supply of raw milk and thus on the supply of dairy products. In the next few months, weather conditions in the Northern hemisphere, will be very important, as the peak production season of the Northern hemisphere, commenced at the end of the first quarter of the year; and
  - The international trade and other disputes.

16. The outbreak of COVID-19 infections in the world is at present and it will most likely in at least the next year, influence the world via its influence on:
  - Human health;
  - Human behaviour including consumer behaviour and preferences;
  - Consumer spending as shaped by the level of economic activity;
  - Service delivery by the public sector; and
  - International trade.
  
17. While uncertainty exists regarding the duration of the COVID-19 pandemic and the extent of its impact on the world, it is at this stage, a certainty that it resulted in a drop in economic activity (reduction in gross domestic product of countries) which can result in lower consumer demand including the demand for dairy products.
  
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 raw milk and dairy products, can in the coming months, result in volatile price movements in the international dairy market.
  
19. Raw milk production in the world is seasonal as production in the winter is lower than the production in the summer. The extent to which raw 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 average price of raw milk in the EU was from March 2020, lower than in not only the same months of 2019, but from February 2020 also lower than the average price in the five years from 2013 to 2017, while the price of raw milk in the USA, dropped to lower levels in the first half of 2020, following which, it recovered to levels comparable to the levels in 2019. In the EU the highest monthly price in 2020, was approximately 6.0 percent higher than the lowest, while in the case of the USA, the figure is considerably higher. (See Graph 5 and Graph 6 of Annexure A).



## **The South African Markets for Dairy Products and Raw Milk**

21. According to the import and export figures of South Africa in respect of dairy products in 2019:

- The mass of exports was 0.5 percent lower than in 2018, due to the lower exports of four of the six types of dairy products, namely concentrated milk (0402), buttermilk and yoghurt (0403), butter (0405) and cheese (0406). The two types of dairy products of which the exports were higher, are milk and cream (0401) and whey (0404);
- The average free on board (f.o.b.) export prices of four of the six types of dairy products, were higher, namely milk and cream (0401), concentrated milk (0402), buttermilk and yoghurt (0403) and cheese (0406), while the export prices of whey (0404) and butter (0405), were lower;
- The mass of imports was 10.0 percent higher than in 2018, due to the higher imports of three of the six types of dairy products, namely milk and cream (0401), concentrated milk (0402) and whey (0404);
- The average f.o.b. import prices of four of the six types of dairy products, namely milk and cream (0401), concentrated milk (0402), buttermilk and yoghurt (0403), and cheese (0406), were higher than in 2018, while the import prices of whey (0404) and butter (0405), were lower;
- The exposure of the South African dairy industry to foreign competition (through imports and exports) in 2019, was higher than in 2018, but lower than the record high exposure recorded in 2017; and
- In terms of mass, South Africa was in 2019, a net exporter of milk and cream (0401) and buttermilk and yoghurt (0403).

22. 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 42.7 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).
23. The production of raw 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 raw 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;
  - 1.60 percent in the three years, 2017 to 2020 (the figure for 2020 is an estimated figure); 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 raw milk purchases per annum in South Africa increased with 30.0 percent, but the pattern of raw milk purchases during each of the last twelve years, as measured by the distribution of the total annual raw milk purchases 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. For example:
- The contribution of the production of raw milk in the last quarter of 2020, to the total production in 2020, was 28.621 percent while the average contribution of the last quarter in the five years 2009 to 2013, and in the six years 2014 to 2019, were respectively 28.535 percent and 28.637 percent; and

- The contributions of the production in the first and second half of 2020, to the total estimated production in 2020, were respectively 45.991 percent and 54.009 percent while:
    - The average contribution of the first half of the five years 2009 to 2013 and the six years 2014 to 2019, were respectively 45.864 percent and 45.778 percent; and
    - The average contribution of the second half of the five years 2009 to 2013 and the six years 2014 to 2019, were respectively 54.136 percent and 54.222 percent.
26. The production of raw milk in South Africa in 2017, was 3.02 percent higher than the production in 2016 (See Table 5 of Annexure A), due to higher production in eleven of the twelve months, but mainly due to the higher production in August 2017 to December 2017, which was respectively 5.2 percent, 3.7 percent, 3.5 percent, 7.9 percent and 8.0 percent higher than in the same months of 2016. (See Table 5 and Graph 7 of Annexure A).
27. The higher production of raw milk from August to December 2017, as described in the previous paragraph, took place notwithstanding the extremely serious drought conditions which existed in the Western and Eastern Cape in 2017. The higher production was the result of the favourable relationship between the prices of raw milk and feed for dairy animals and also, according to a number of experts, higher production per cow in particular regions due to favourable weather conditions in the regions concerned and more use of concentrated feed and lucerne in drought-stricken regions. The lower feed prices were the result of especially the low maize price as a consequence of the record high maize production in the 2016/2017 production season and the good production in the 2017/2018 production season.
28. The production of raw 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).
29. The production of raw 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 in 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 estimated production of raw milk in South Africa in 2020, was 0.60 percent lower than in 2019, 0.04 percent higher than in 2018 and 4.9 percent higher than in 2017. The decrease from 2019, to 2020, is the result of lower production in ten of the twelve months of 2020. (See Table 5 and Table 8 of Annexure A). The final production figure in respect of 2020, will be made known by Milk SA at the end of March 2021.
31. The lower production of raw 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 raw milk, which existed in 2020. Essentially this position discouraged, optimistic views about the future demand for dairy products and the demand for raw milk, and thus the justification for stimulation of production of raw 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<sup>2)</sup> of feed for dairy cattle and which eroded the positive impact of the increase of the prices of raw milk which occurred.
32. Regarding the seasonal decrease in the production of raw milk in South Africa, the following:
- The decrease from October 2019 to February 2020, was 17.7 percent, which is higher than the average decrease of 15.6 percent recorded in the years from 2008/2009 to 2018/2019, and the third highest recorded in the years 2008/2009 to 2018/2019. The highest decrease from October to February in the years from 2008/2009 to 2019/2020 of 18.0 percent, was recorded in 2013/2014 and the decrease from October to February 2016/2017 of 17.8 percent, is the second highest decrease;
  - The decrease from October 2019 to April 2020, of 24.8 percent, is higher than the average decrease of 21.1 percent in the years 2008/2009 to 2018/2019 and it is also the highest decrease recorded in the years from 2008/2009 to 2018/2019. The second and third highest decrease of 24.4 percent and 23.4 percent were recorded in respectively 2008/2009 and 2010/2011;

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2) *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.*

- The decrease from October 2019 to June 2020, was 26.9 percent which is not only higher than the average decrease of 22.4 percent in the years from 2008 to 2019, but it is also the highest in the years concerned. The second highest decrease of 25.6 percent, was recorded in 2018/2019 and the third highest decrease of 25.4 percent in 2008/2009; and
- The decrease from October 2020 to December 2020, of 7.2 percent, is higher than the average decrease of 5.6 percent in the years 2008 to 2020, and the fourth highest decrease recorded in the years 2008 to 2020. The highest decrease of 7.9 percent was recorded in 2016, and the second highest decrease of 7.7 percent was recorded in 2015. (See Table 9 of Annexure A).

33. Regarding the seasonal increase in the production of raw milk in South Africa in 2020, the following:

- The increase from July 2020 to August 2020, of 14.5 percent, was higher than the average increase of 12.3 percent in the thirteen years, 2008 to 2020, and it is the third highest recorded in the years, 2008 to 2020;
- The increase from July 2020 to September 2020, of 27.0 percent, was higher than the average increase of 24.8 percent in the thirteen years, 2008 to 2020, and it is fourth highest recorded in the years 2008 to 2020; and
- The increase from July 2020 to October 2020, of 31.6 percent, was higher than the average increase of 28.4 percent, 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).

34. In 2018, the South African producer price index of raw milk:

- Increased with 1.7 percent from January to March; and
- Decreased with 15.3 percent from March to December to a level 14.5 percent lower than in December 2017, and 13.0 percent lower than in December 2016. (See Graph 8 of Annexure A).

The decrease in the producer price index of raw milk, from March 2018 to December 2018, was the result of the high production of raw milk and the downward pressure on the demand for dairy products due to the low economic growth rate of South Africa.

35. In 2019, the producer price index of raw milk did not change in January, July and October, 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 raw 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.

36. From January 2020 to August 2020, the producer price index of raw milk increased with 8.5 percent and from August 2020 to September 2020, it decreased with 1.7 percent, followed by an increase of 2.0 percent up to December 2020. The net result of these price movements is that the price index of raw milk in December 2020 was 10.6 percent higher than in December 2019.
37. The producer price index of raw milk was in December 2020, 0.69 percent lower than the producer price index of dairy products, while in December 2019, the producer price index of raw milk was 8.7 percent lower than that of dairy products. (See Graph 11 of Annexure A).
38. From December 2020 to January 2021, the producer price index of raw milk increased by 6.58 percent, to a level 18.0 percent higher than in January 2020 and 29.3 percent higher than in January 2019. This increase is the third highest monthly increase in the three years January 2018 to January 2021. The highest monthly increase in this period of three years, of 7.78 percent was recorded in March 2019 and the second highest of 6.81 percent was recorded in March 2020 . (See Table 11 of Annexure A). In January 2020, the producer price index of raw milk was 3.7 percent higher than the producer price index of dairy products. (See Graph 11 of Annexure A).
39. The producer price index of raw milk in January 2021, was 10.3 percent lower than the producer price index of “cereals and other crops” while in January 2020, the producer price index of raw milk was 3.6 percent lower 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 raw milk. More specific and relevant comparisons are the comparisons of the producer price index of raw milk with the price indices of yellow maize and soya prices and it shows the following:
- In 2019, and due to the price movements of raw milk, yellow maize and soya, the level of encouragement for the production of raw 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 which is calculated as the sum of 70 percent of the maize price and 30 percent of the soya price; and
  - 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 raw milk, which previously happened in 2016, when the production of raw milk was 0.65 percent lower than in the previous year. (See Graph 9 of Annexure A)
40. Regarding the future price movements of yellow maize and soya, the following:
- The prices of yellow maize achieved on Safex on 15 February 2021, for delivery in March 2021 to September 2021, are from 0.4 percent to 8.0 percent higher than the prices achieved on 11 November 2021;
  - The prices of yellow maize achieved on 15 February 2021, for delivery in March 2021 to July 2021, decreases with 4.7 percent and from July 2021 to December 2021, it increases with 3.8 percent to a level 1.1 percent lower than the price in March 2021. (See Table 12 of Annexure A);

- The prices of soya achieved on Safex on 15 February 2021 for delivery in March 2021, to September 2021, are from 3.7 percent to 5.4 percent higher than the prices achieved on 11 November 2021; and
- The prices of soya achieved on 15 February 2021, for delivery in March 2021 to May 2021, decrease with 12.1 percent and from May 2021 to September 2021, it increases with 2.6 percent to a level of 9.8 percent lower than in March 2021. (See Table 13 of Annexure A).

41. From the previous paragraph, it is clear that:

- Raw milk producers who concluded contracts in respect of yellow maize and soya on 11 November 2020, for delivery in March 2021 to September 2021, are in a better position than those who concluded contracts on 15 February 2021; and
- In the next quarter (March to May 2021) the future price of maize decreased with 3.5 percent and that of soya with 12.1 percent, and these price movements do not signal higher feed prices but also not meaningful reduction in feed prices in the next quarter.

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 and cheddar cheese 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 2018, the producer price index of dairy products moved within a band of index figures of which the highest, which was recorded in May 2018, was 3.9 percent higher than the lowest which was recorded in October 2018. The index figure in December 2018, was the same as the figure in January 2018 (See Graph 10 of Annexure A).

44. 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.

45. 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 is 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.

46. From December 2020 to January 2021, the producer price index of dairy products increased with 1.9 percent to a level 1.1 percent higher than in January 2020 and 4.7 percent higher than in January 2019. In the year which ended in January 2021, the increase of the producer price index of dairy products of 1.1 percent, is much lower than the increase in the producer price index of raw milk which was 18.1 percent in the same period.
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. Key observations in respect of the performance of the nine dairy products, of which the performance in the South African retail market is monitored, and which is shown in Table 14, Table 15 and Table 16 of Annexure A, are as follows:
- a) In the year which ended in December 2020, relative to the year which ended in December 2019:
- The retail sales quantities of two of the nine dairy products, namely fresh milk, and flavoured milk, were respectively 7.9 percent, and 10.6 percent lower; and
  - The retail sales quantities of seven of the dairy products, were higher, namely UHT (long life) milk (9.6 percent), yoghurt (9.9 percent), maas (6.2 percent), pre-packaged cheese (14.8 percent), cream cheese (2.2 percent), butter (8.2 percent) and cream (11.2 percent).
- b) In the quarter which ended in December 2020, relative to the quarter which ended in December 2019:
- The retail sales quantities of three of the nine dairy products namely fresh milk, and cream cheese, were respectively 9.3 percent and 7.2 percent and 0.6 percent lower; and
  - The retail sales quantities of six of the dairy products were higher, namely UHT milk (5.7 percent), yoghurt (5.9 percent), maas (1.8 percent), pre-packaged cheese (10.2 percent), butter (1.7 percent) and cream (7.7 percent).



- c) In the year which ended in December 2020, the retail sales prices of each of the nine dairy products increased as follows:
- Fresh milk 2.8 percent;
  - UHT milk 4.3 percent;
  - Flavoured milk 4.7 percent;
  - Yoghurt 2.2 percent;
  - Maas 1.0 percent;
  - Pre-packaged cheese 3.8 percent;
  - Cream cheese 9.4 percent;
  - Butter 11.1 percent; and
  - Cream 2.2 percent.
- d) In the quarter which ended December 2020, the retail sales prices of two of the nine dairy products, namely yoghurt and maas, decreased with respectively 0.7 percent and 1.6 percent and the retail prices of the other seven dairy products increased as follows:
- Fresh milk 1.3 percent;
  - UHT milk 0.4 percent;
  - Flavoured milk 1.7 percent;
  - Pre-packaged cheese 1.7 percent;
  - Cream cheese 3.8 percent;
  - Butter 1.2 percent; and
  - Cream 3.0 percent.
- e) The extent to which the average retail price of UHT milk exceeded that of fresh milk, decreased from 10.0 percent in 2014, to 3.9 percent in 2016. In 2017 and 2018, the average 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 retail price of UHT milk was respectively 0.2 percent and 2.3 percent higher than that of fresh milk (See Table 17 of Annexure A).

50. The information contained in paragraphs 48 and 49, justifies the following general and important conclusions:

- a) In 2020 and in the situation created by COVID-19 and the lockdown measures of the Government, the performance in the retail market of specific dairy products namely, UHT milk, yoghurt, pre-packaged cheese, cream cheese, butter and cream, improved relative to the performance in 2019, while the opposite is true in respect of fresh and flavoured milk;

- b) In the quarter which ended in December 2020:
- The retail sales quantities of six of the nine dairy products were higher than in the same quarter of 2019; and
  - The retail sales prices of seven of the nine dairy products, increased;
- c) The position described under (a) and (b), cannot be ascribed to the macro-economic fundamentals namely an increase in the gross domestic product of South Africa and increased consumer income, as in 2020, there was a significant drop in economic activity due to COVID-19 and measures to curb the spread of COVID-19. Clearly, the exceptional performance of specific dairy products in the very unusual situation created by COVID-19, is the result of changed behaviour of significant segments of the consumer market and, in this regard, the role of individual members of the dairy industry and of the organised dairy industry (especially the work of the Consumer Education Project of Milk SA, the Dairy Standard Agency and the Regulations Standards Project of Milk SA) to position dairy products as healthy, nutritious, safe and tasty foods, and as foods with integrity, should be acknowledged. Obviously, it is not reasonable to assume that:
- The changed consumer behaviour and preferences will continue as the circumstances which created, or contributed to, the changes in consumer behaviour and preferences will likely diminish, but the speed at which it will diminish, is unknown; and
  - The lower level of economic activity in South Africa resulting from COVID-19 and of which the extent will only be known later, will not impact negatively on the demand for food products like dairy products.
- d) The retail sales quantity of fresh milk continued to decline notwithstanding the fact that the average retail price of UHT milk, was in 2020 slightly (2.3 percent) higher than that of fresh milk. The extent to which the average retail price per month of UHT milk differed from that of fresh milk in 2020, varied from 7.9 percent higher to 0.6 percent lower. (See Table 17 of Annexure A). This downward trend in the retail sales of fresh milk is visible in respect of a number of years and it indicates that increasingly consumers give preference to UHT milk, at the expense of the retail sales of fresh milk.

51. The relative movements of the retail prices of particular dairy products in the six years from 2015 to 2020, are shown in Graph 12 of Annexure A. This graph shows, amongst other:

- 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 price 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 much higher than the retail price indices of the other dairy products;

- In 2019 and 2020, the retail price indices of maas and pre-packaged cheese were 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.

52. Regarding the relative movements of the price of raw milk and the prices of the different dairy products, it should be taken into account that:

- The production (supply) of raw milk is much more seasonal than is the case with the demand for major dairy products; and
- The production of raw milk is influenced 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 raw milk.

Due to the above factors and as raw milk is not the only input<sup>3)</sup> in the manufacturing of dairy products and in respect of the presentation thereof in the retail, the price of raw milk is often subject to higher fluctuations than the prices of dairy products.

53. The relative movements of the retail price of fresh milk, the retail price of UHT milk and the producer price of raw milk, in the six years, 2015 to 2020, against the background of the increase in raw milk purchases per annum, are shown in Graph 13 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 of fresh milk is less volatile than the retail price of UHT milk and the producer price of raw milk;
- The retail price index of fresh milk is since the second quarter of 2018, higher than the producer price index of raw milk while the retail price index of UHT milk was, with the exception of one month in the in the 72 month period, lower than the producer price index of raw milk; and
- The movements of the prices concerned are influenced by the total raw milk purchases. The impact in the years concerned, of the higher and lower production of raw milk on the prices of raw 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 raw 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 demand, results in price movements.

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3) ***Inputs other than raw 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 raw milk delivered at dairy factories.***

54. The relative movements of the retail prices of yoghurt, maas and pre-packaged cheese as well as the price of raw milk, against the background of the increase in the quantity of raw milk purchased per annum, are shown in Graph 14 of Annexure A. This Graph shows that:
- The price of raw 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 raw milk, is weaker than is the case in respect of the retail price of UHT milk and the price of raw milk as shown in Graph 13. In this regard, it should be noted that the contributions of the price of raw milk to the prices of UHT milk and maas, are much higher than the contribution of the price of raw 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 milk<sup>4)</sup> instead of raw milk, can be used to manufacture maas and yoghurt; and
  - In the six years 2015 to 2020, the price index of raw 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 and pre-packaged cheese, are lower than that of yoghurt.

---

4) *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”.*

55. **In summary**, the position of the South African dairy industry is as follows:

- a) The increased performance of the specific dairy products in the South African retail market, in 2020 relative to 2019, cannot be ascribed to the macro-economic fundamentals namely an increase in the gross domestic product of South Africa and increased consumer income, as there was in 2020, a significant drop in economic activity due to COVID-19 and measures to curb the spread of COVID-19. Clearly, the performance of specific dairy products concerned in 2020, and the performance in December 2020, amidst the very unusual situation created by COVID-19, is the result of changed consumer behaviour and preferences. In this regard, the work of the individual members of the dairy industry and the organized dairy industry to position dairy products as healthy, nutritious, tasty and safe foods, and as foods with integrity, should be acknowledged. Obviously, it is not reasonable to assume that:
- The changed consumer behaviour and preferences will continue unaltered, as the circumstances which created, or contributed to the changes in consumer behaviour and preferences, will likely diminish over time, but the speed at which it will diminish, is unknown; and that
  - The lower level of economic activity in South Africa resulting from COVID-19 and of which the full extent will only be known later, cannot impact negatively on the demand for food products like dairy products;
- b) The estimated production of raw milk in South Africa in 2020, is 0.6 percent lower than in 2019, the relationship between the index of the indicator of feed price and the raw milk price index weakened considerably due to the sharp increases in the prices of maize and soya and it was in the last half of 2020, more or less the same as in 2016, when the production of raw milk was 0.45 percent lower than in 2015. The future price of maize, achieved on 15 February 2021, does signal a potential for meaningful lower feed prices in the next quarter May 2021 to May 2021.

56. In the November 2020 edition of Key Market Signals for the Dairy Industry, and based mainly on information as available in September 2020 and October 2020, it was stated that:

“The challenge to the South African dairy industry in the immediate future, is especially to deal with:

- Production cost increases and especially recent increase of the production cost of raw milk, due to the recent unexpected sharp increases in the prices of maize and soya, which discourage raw milk production in South Africa;
- The high uncertainty regarding the future demand for dairy products in South Africa, amidst lower consumer income resulting from COVID-19; and
- The position that increases of the prices of raw milk and dairy products, will most likely influence the quantity of the sales thereof.

Clearly it will be very challenging for the South African dairy industry to deal with these issues, in a way that enable supply to follow demand.”

57. The information available in February 2021, shows that most of the dairy products performed well in the retail market in 2020 and that, in response to the growth of the demand for the dairy products concerned and against the background of the normal seasonal decline in the production of raw milk, the sharp increase of the index of the feed price indicator, the producer price index of raw milk increased much more than the producer price index of dairy products. Also, the available information shows that the increase in feed prices eroded the encouragement for higher production offered by the higher raw milk prices, and that in the nine years which ended in December 2020, the retail prices of most dairy products increased less than the price of raw milk, although the last mentioned is more subject to fluctuation than the retail prices of most dairy products due to the reasons explained in this report.
58. In the next few months, the dairy industry will have to deal with uncertainty regarding the future demand for dairy products due to:
- The uncertainty regarding the future influence of COVID-19; and
  - The uncertainty about the impact of higher prices for dairy products on the sales quantities of dairy products, amidst the lower level of economic activity in South Africa and against the background of the fact that the increase in the producer price index of raw milk up to January 2021, was higher than the increase in the producer price index of dairy products, while the increase of the producer price index of raw milk, does not compare favourably with the increase in the index of the feed price indicator.

**Alwyn P Kraamwinkel (M.Com)**  
**CEO: SAMPRO**  
**16 March 2021**

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<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

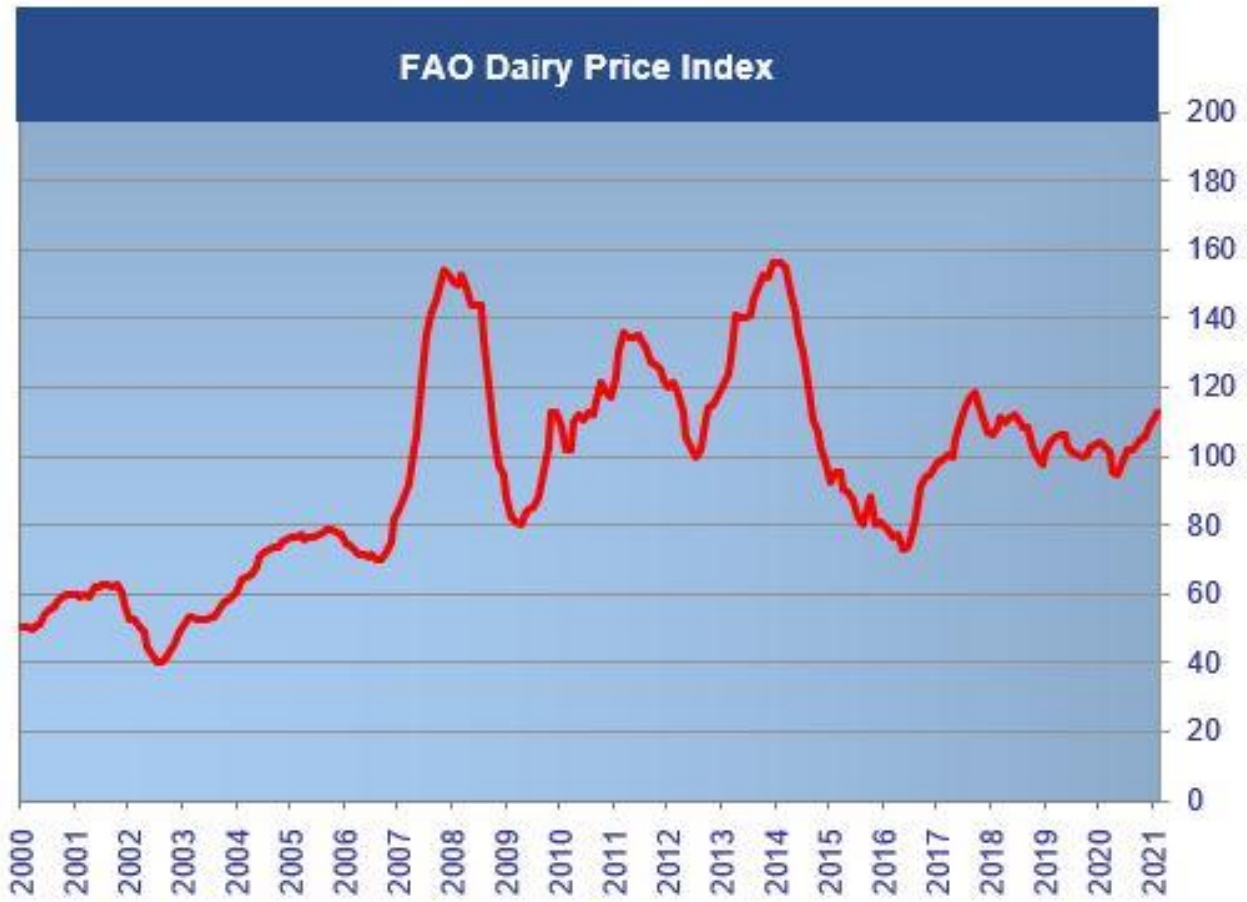
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Graph 1<sup>1)</sup>

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



The FAO Dairy Price Index consists of butter, SMP, WMP, cheese, casein price quotations; the average is weighted by world average export trade shares for 2014-2016.

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

Table 1<sup>2)</sup>

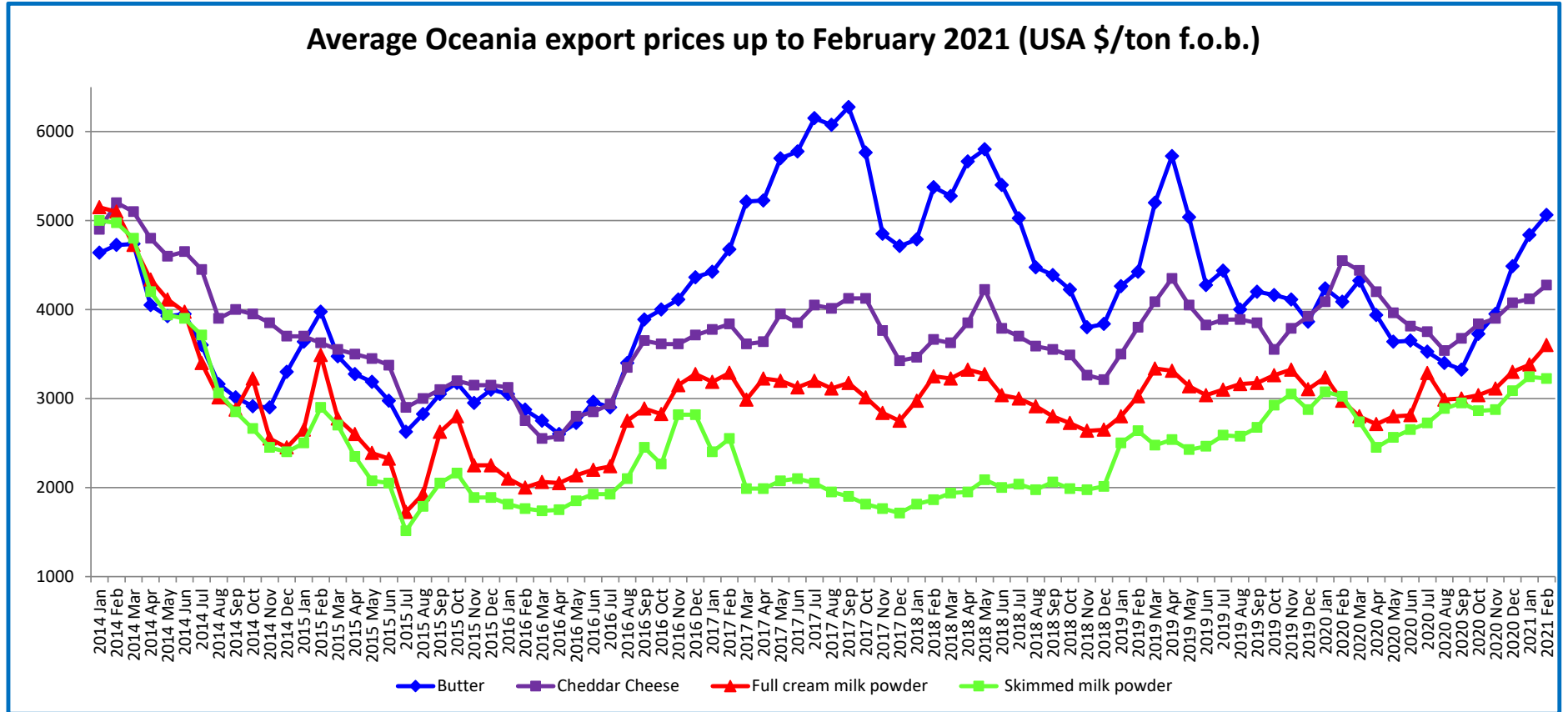
## VOLATILITY PER YEAR OF THE PRICE INDEX OF THE FAO OF DAIRY PRODUCTS IN THE INTERNATIONAL MARKET

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	109.3	94.4	10.5
<b>Average</b>	<b>105.8</b>	<b>83.4</b>	<b>26.3</b>
2021 (Jan – Feb)	113.0	111.1	1.7

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

Graph 2<sup>3)</sup>



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

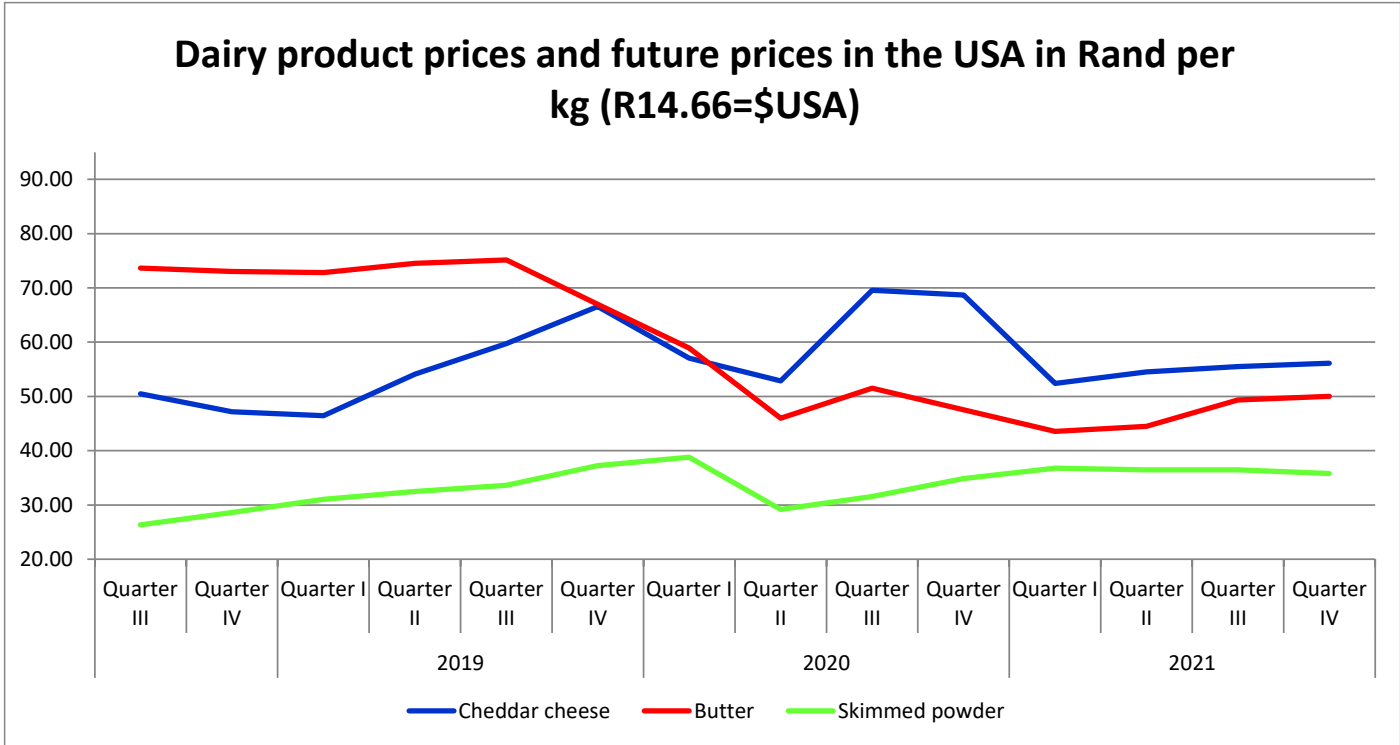
Table 2<sup>4)</sup>

PRICES IN US\$ AND RAND (\$=R14.88) PER TON ACHIEVED AT GLOBAL DAIRY TRADE AUCTION ON 2 MARCH 2021, FOR DELIVERY IN APRIL 2021 TO AUGUST 2021

	Apr	May	Jun	Jul	Aug
<b>Whole Milk Powder</b>					
PRICE: \$	4 368	4 338	4 389	4 417	4 360
PRICE: R	64 996	64 549	65 308	65 725	64 877
Index	100.0	99.3	100.5	101.1	99.8
<b>Skimmed Milk Powder</b>					
PRICE: \$	3 384	3 225	3 376	3 421	3 402
PRICE: R	50 354	47 988	50 235	50 904	50 622
Index	100.0	95.3	99.8	101.1	100.5
<b>Cheddar</b>					
PRICE: \$	4 320	4 270	4 406	4 145	n.a
PRICE: R	64 282	63 538	65 561	61 678	n.a
Index	100.0	98.8	102.0	95.9	n.a
<b>Butter</b>					
PRICE: \$	5 925	5 950	5 632	5 850	5 725
PRICE: R	88 164	88 536	83 804	87 048	85 188
Index	100.0	100.4	95.1	98.7	96.6

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

Graph 3<sup>5)</sup>



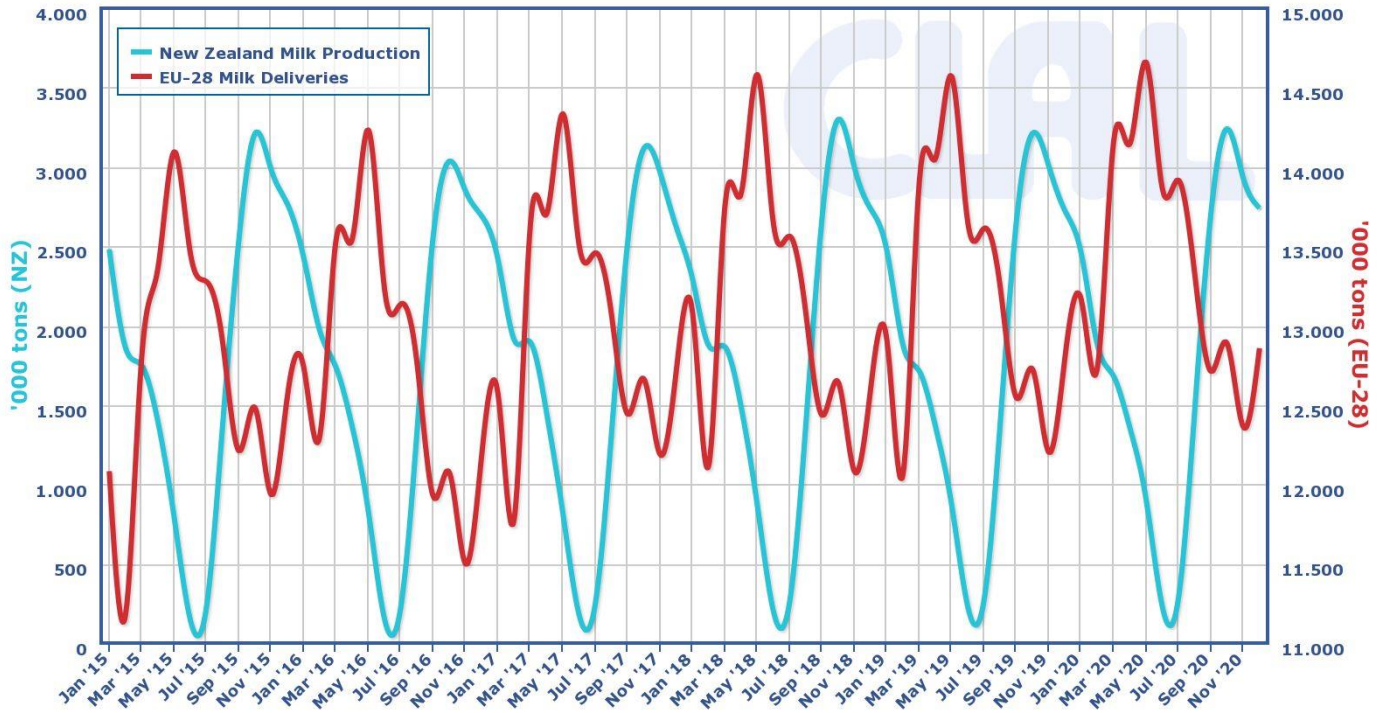
5) Graph prepared by the Office of SAMPRO based on information contained in the United States Department of Agriculture, Livestock, Dairy, and Poultry Outlook, 16 February 2021

Graph 4<sup>6)</sup>

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

Production season overview in Europe and in New Zealand

Processed by CLAL on data sourced Eurostat and Dcanz



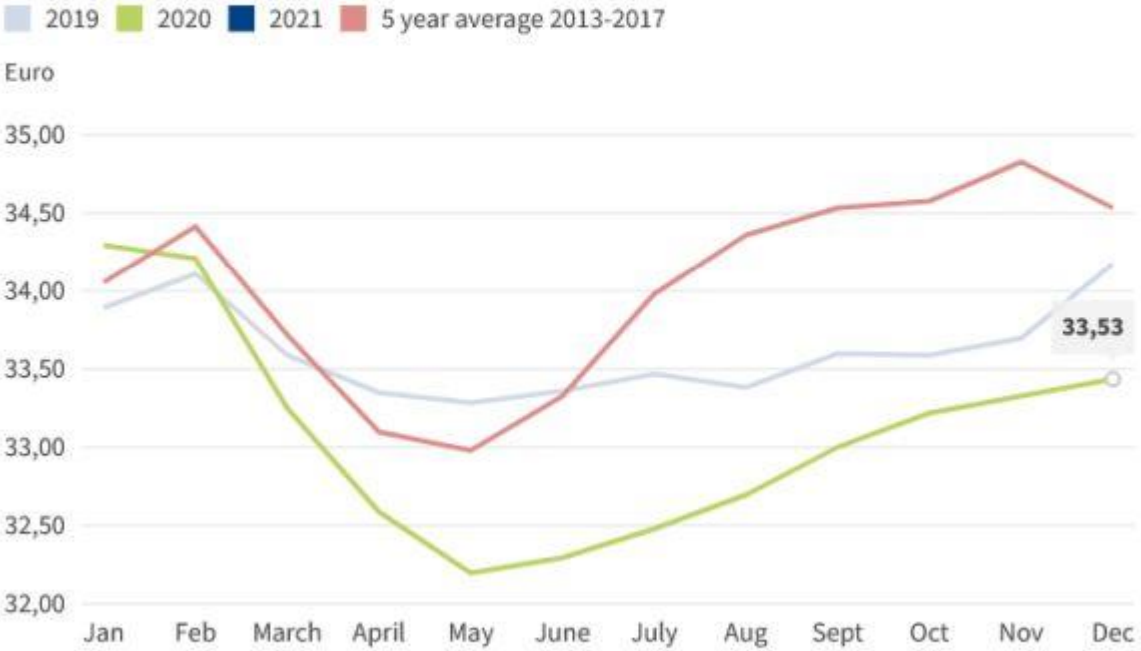
6) Graph as published by CLAL.it

**Graph 5<sup>7)</sup>**

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

**Average milk price until January 2021**

In euro per 100 kg standard milk with 4.2% fat, 3.4% protein, 1,000,000 kg per year, tbc 24,999 per ml and scc 249,999 per ml, VAT excluded



Bron: ZuivelNL / LTO Internationale Melkprijsvergelijking

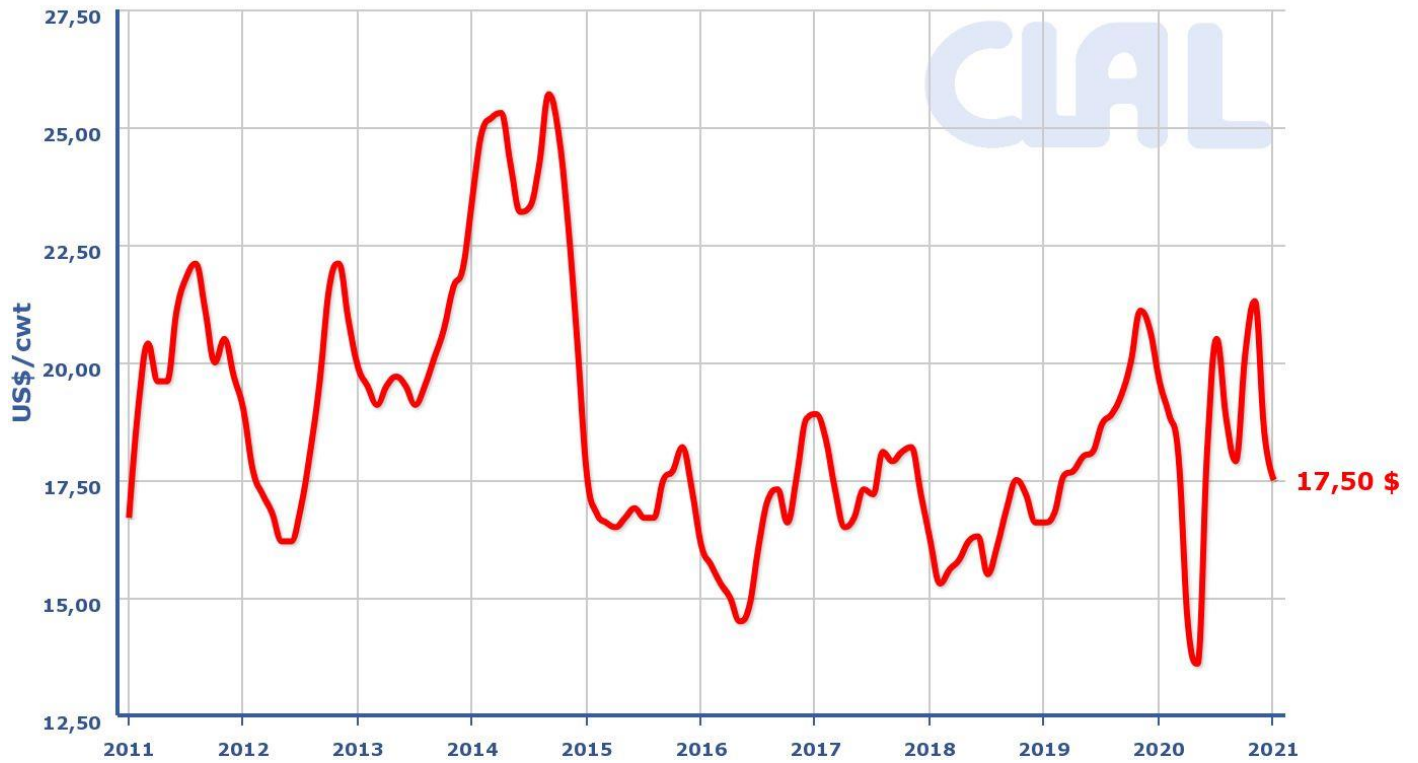
7) Graph as published by LTO Nederland.

Graph 6<sup>8)</sup>

## RAW MILK PRICES IN THE USA

### US - Farm-gate All Milk prices

Source: AMS USDA Dairy Markets News



8) Graph as published by CLAL.it



**Table 3<sup>9)</sup>**

**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 2020**

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	136.03	107 274.72	182.0

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

**Table 4<sup>10)</sup>****MASS OF IMPORT AS PERCENTAGE OF THE MASS OF EXPORT OF DAIRY PRODUCTS BY SOUTH AFRICA**

Heading	Description	2012	2013	2014	2015	2016	2017	2018	2019	2020
04.01	Milk and cream, unsweetened	54.3	14.7	21.4	92.5	84.3	217.1	103.7	90.2	26.4
04.02	Milk, concentrated	199.3	46.5	117.3	197.7	196.3	146.4	159.5	227.9	252.8
04.03	Buttermilk powder, yoghurt	16.6	8.2	9.2	16.5	19.7	28.4	27.9	31.7	40.3
04.04	Whey, whey powder, etc	669.5	452.7	507.4	221.3	185.9	192.9	1 741.3	2 917.9	1 257.6
04.05	Butter, butter spreads and butter oil	591.1	266.7	111.4	344.1	396.7	491.2	735.1	355.5	540.6
04.06	Cheese and curd	536.5	286.6	281.2	314.2	330.3	338.7	272.5	252.7	141.7
<b>TOTAL</b>		<b>90.2</b>	<b>112.6</b>	<b>50.6</b>	<b>56.5</b>	<b>115.4</b>	<b>171.7</b>	<b>151.7</b>	<b>167.8</b>	<b>129.7</b>

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

Table 5<sup>11)</sup>

**TOTAL QUANTITY OF RAW MILK PURCHASED IN SOUTH AFRICA DURING THE YEARS 2008 TO 2020<sup>12)</sup>**

<b>YEAR</b>	<b>RAW MILK KILOGRAM</b>	<b>PERCENTAGE CHANGE FROM PREVIOUS YEAR</b>	<b>INDEX 2008 = 100</b>
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
<b>2020<sup>12)</sup></b>	<b>3 412 127 517</b>	<b>-0.60</b>	<b>130.00</b>

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

12) The total purchases of unprocessed milk in 2020, is an estimated figure and it will be revised in March 2021

Table 6<sup>13)</sup>RAW MILK PURCHASES PER QUARTER OF EACH OF THE YEARS 2009 to 2020 <sup>13)</sup>

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
<b>Total (2009-2013)</b>	<b>3 275 514 797</b>	<b>23.792</b>	<b>3 038 695 889</b>	<b>22.072</b>	<b>3 524 505 991</b>	<b>25.601</b>	<b>3 928 411 675</b>	<b>28.535</b>	<b>13 767 128 352</b>	<b>100</b>

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

<b>Total (2009-2019)</b>	<b>7 869 301 209</b>	<b>23.718</b>	<b>7 330 765 818</b>	<b>22.095</b>	<b>8 490 915 543</b>	<b>25.592</b>	<b>9 487 002 920</b>	<b>28.594</b>	<b>33 177 985 490</b>	<b>100</b>
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Year	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Total	
	Kg	%	Kg	%	Kg	%	Kg	%	Kg	%
2020 <sup>14)</sup>	828 201 856	24.236	741 068 661	21.686	869 905 160	25.456	978 064 748	28.621	3 417 240 425	100

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

Quarters of which the percentage contribution to the total raw 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

14) The figure in respect of the fourth quarter of 2020, is an estimated figure.

Table 7<sup>15)</sup>

## RAW MILK PURCHASES PER HALF YEAR IN EACH OF THE YEARS 2009 TO 2020

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
<b>Total (2009-2013)</b>	<b>6 314 210 686</b>	<b>45.864</b>	<b>7 452 917 666</b>	<b>54.136</b>	<b>13 767 128 352</b>	<b>100.00</b>

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
<b>Total (2014-2019)</b>	<b>8 885 856 341</b>	<b>45.778</b>	<b>10 525 000 797</b>	<b>54.222</b>	<b>19 410 857 138</b>	<b>100.00</b>
<b>Total (2009-2019)</b>	<b>13 625 952 714</b>	<b>45.809</b>	<b>16 119 230 380</b>	<b>54.191</b>	<b>29 745 183 094</b>	<b>100.00</b>
2020 <sup>14)</sup>	1 569 270 517	45.991	1 842 857 001	54.009	3 412 127 518	100.00

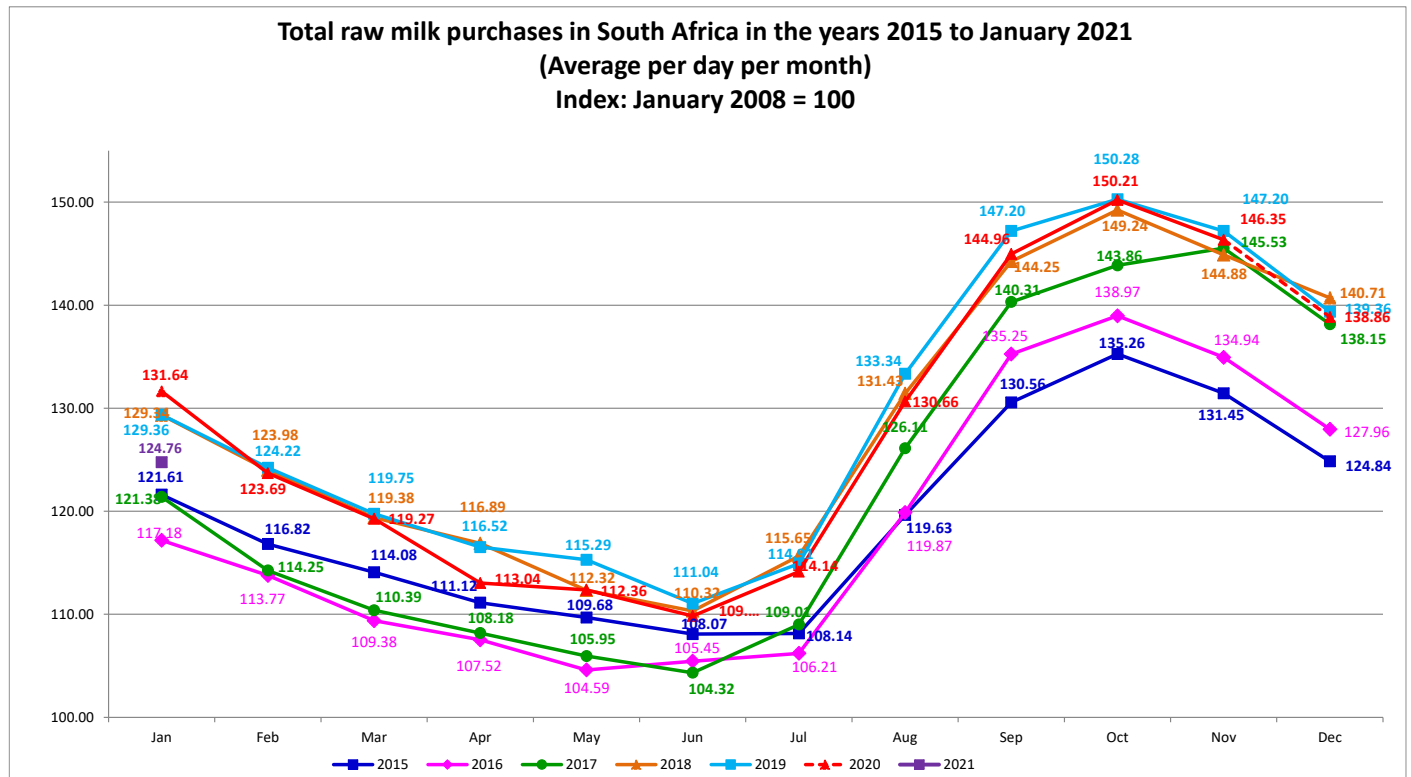
14) The figure in respect of the second half of 2020, is an estimated figure

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

Half years of which the percentage contribution to the total raw 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 7<sup>16)</sup>

**AVERAGE RAW MILK PURCHASES PER DAY PER MONTH IN SOUTH AFRICA IN THE YEARS 2015 TO JANUARY 2021**



16) 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 January 2021 is in respect of the total raw 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 December 2020 and January 2021 are estimated figures.

Table 8<sup>17)</sup>

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

	Percentage increase
January 2018 relative to January 2017	6.6
February 2018 relative to February 2017	8.5
March 2018 relative to March 2017	8.1
April 2018 relative to April 2017	8.1
May 2018 relative to May 2017	6.0
June 2018 relative to June 2017	5.7
July 2018 relative to July 2017	6.1
August 2018 relative to August 2017	4.2
September 2018 relative to September 2017	2.8
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	1.8
February 2020 relative to February 2019	-0.4
March 2020 relative to March 2019	-0.4
April 2020 relative to April 2019	-3.0
May 2020 relative to May 2019	-2.5
June 2020 relative to June 2019	-1.1
July 2020 relative to July 2019	-0.7
August 2020 relative to August 2019	-2.0
September 2020 relative to September 2019	-1.5
October 2020 relative to October 2019	-0.05
November 2020 relative to November 2019	0.7
December 2020 relative to December 2019 (est)	-0.03
January 2021 relative to January 2020(est)	-5.2

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

Table 9<sup>18)</sup>

**DECREASE IN THE MONTHLY 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	17.7	24.8	26.9
Average 2008/9 to 2019/20	5.6	15.6	21.1	22.4
2020/2021	7.2			

18) Table prepared by the Office of SAMPRO based on information obtained from MILK SA. The figures in respect of 2020 and 2021, are estimated figures.



**Table 10<sup>19)</sup>**

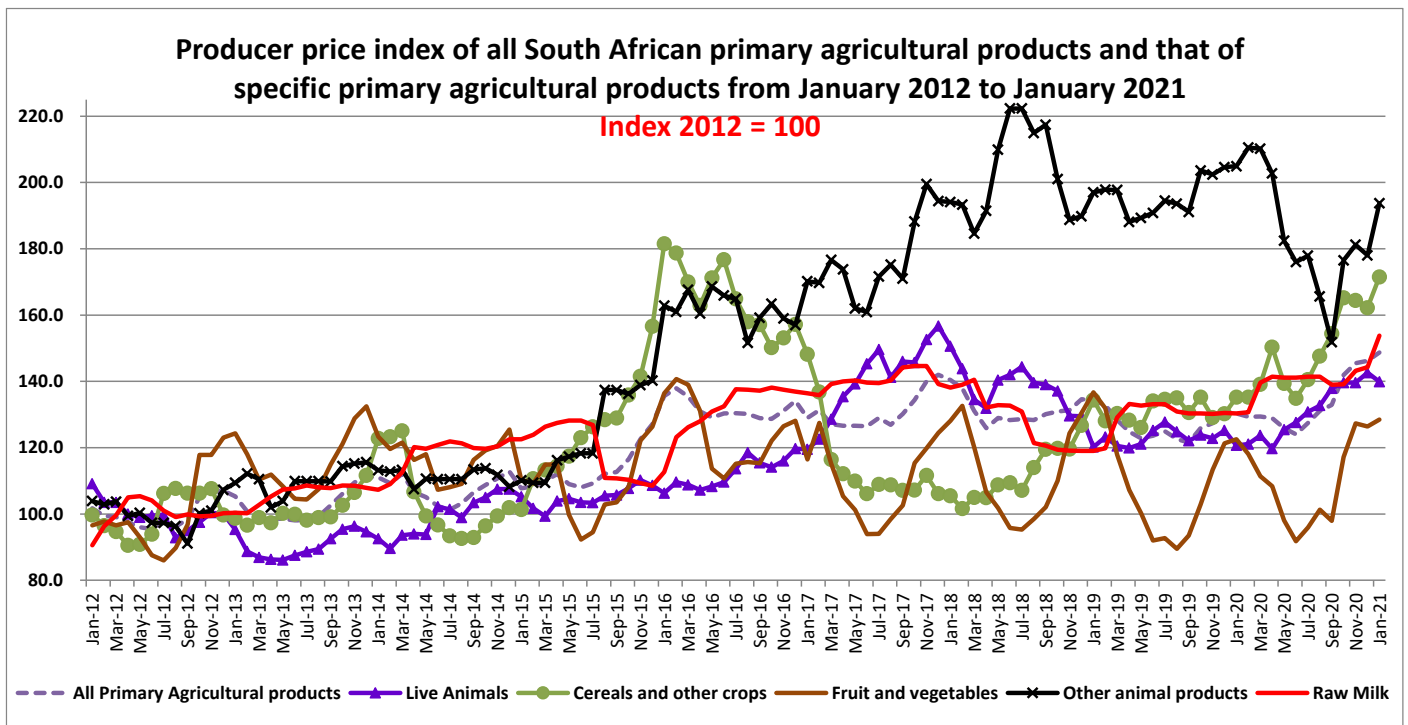
**INCREASE IN THE MASS OF MONTHLY RAW MILK PURCHASES IN SOUTH AFRICA, FROM JULY TO AUGUST, JULY TO SEPTEMBER AND JULY TO OCTOBER IN EACH OF THE YEARS 2008 TO 2020**

<b>Year</b>	<b>July to August Percent</b>	<b>July to September Percent</b>	<b>July to October Percent</b>
<b>2008</b>	<b>10.7</b>	<b>22.2</b>	<b>24.6</b>
<b>2009</b>	<b>12.4</b>	<b>24.5</b>	<b>29.3</b>
<b>2010</b>	<b>9.7</b>	<b>19.8</b>	<b>24.2</b>
<b>2011</b>	<b>10.6</b>	<b>26.3</b>	<b>28.2</b>
<b>2012</b>	<b>10.3</b>	<b>21.8</b>	<b>25.6</b>
<b>2013</b>	<b>11.4</b>	<b>23.0</b>	<b>26.3</b>
<b>2014</b>	<b>13.0</b>	<b>27.2</b>	<b>32.9</b>
<b>2015</b>	<b>10.6</b>	<b>20.7</b>	<b>25.1</b>
<b>2016</b>	<b>12.7</b>	<b>27.2</b>	<b>30.7</b>
<b>2017</b>	<b>15.9</b>	<b>31.7</b>	<b>34.3</b>
<b>2018</b>	<b>13.7</b>	<b>24.7</b>	<b>29.0</b>
<b>2019</b>	<b>16.0</b>	<b>28.1</b>	<b>30.8</b>
<b>Average 2008 to 2019</b>	<b>12.3</b>	<b>24.8</b>	<b>28.4</b>
<b>2020</b>	<b>14.5</b>	<b>27.0</b>	<b>31.6</b>

*19) Table prepared by the Office of SAMPRO on the basis of information obtained from MILK SA. The information in respect of 2008 to 2019 is in respect of the total raw 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 in respect of 2020 are estimated figures.*

Graph 8<sup>20)</sup>

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



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

Table 11<sup>21)</sup>

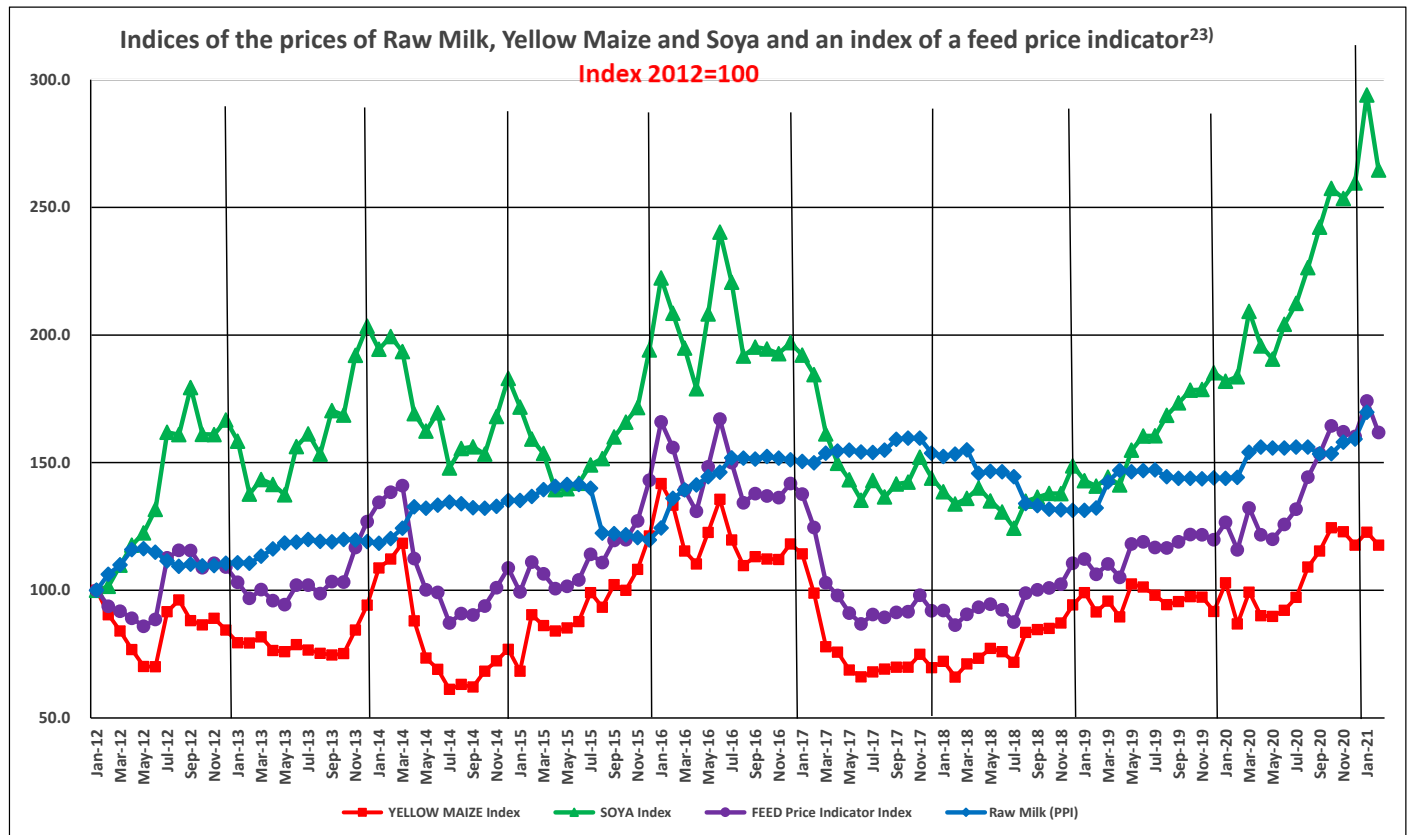
## MONTHLY INCREASE IN THE PRODUCER PRICE INDEX OF RAW MILK

	Percentage increase
January 2018 relative to December 2017	-0.80
February 2018 relative to January 2018	0.65
March 2018 relative to February 2018	1.08
April 2018 relative to March 2018	-5.96
May 2018 relative to April 2018	0.51
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

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

Graph 9<sup>22)</sup>

**INDICES OF THE PRICES OF RAW MILK IN THE PERIOD JANUARY 2012 TO JANUARY 2021 AND THAT OF, YELLOW MAIZE AND SOYA AND AN INDEX OF A FEED PRICE INDICATOR<sup>23)</sup> IN THE PERIOD JANUARY 2012 TO FEBRUARY 2021**



**INCREASE IN RAW MILK PURCHASES RELATIVE TO PREVIOUS YEAR (PERCENT)<sup>24)</sup>**

2012	2013	2014	2015	2016	2017	2018	2019	2020 Est
4.5	2.22	2.65	6.32	-0.45	3.02	4.82	0.65	-0.60

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 12<sup>25)</sup>

**FUTURE PRICES OF YELLOW MAIZE IN SOUTH AFRICA (R/TON) ON 11 NOVEMBER 2020 AND 15 FEBRUARY 2021, ACCORDING TO SAFEX**

	<b>A CLOSING BID 11 November 2020 R/Ton</b>	<b>B CLOSING BID 15 February 2021 R/Ton</b>	<b>C Percentage increase from A to B</b>
<b>March 2021</b>	3 418	3 433	0.4
<b>May 2021</b>	3 080	3 312	7.5
<b>July 2021</b>	3 025	3 271	8.1
<b>September 2021</b>	3 074	3 321	8.0
<b>December 2021</b>		3 394	

Table 13<sup>25)</sup>

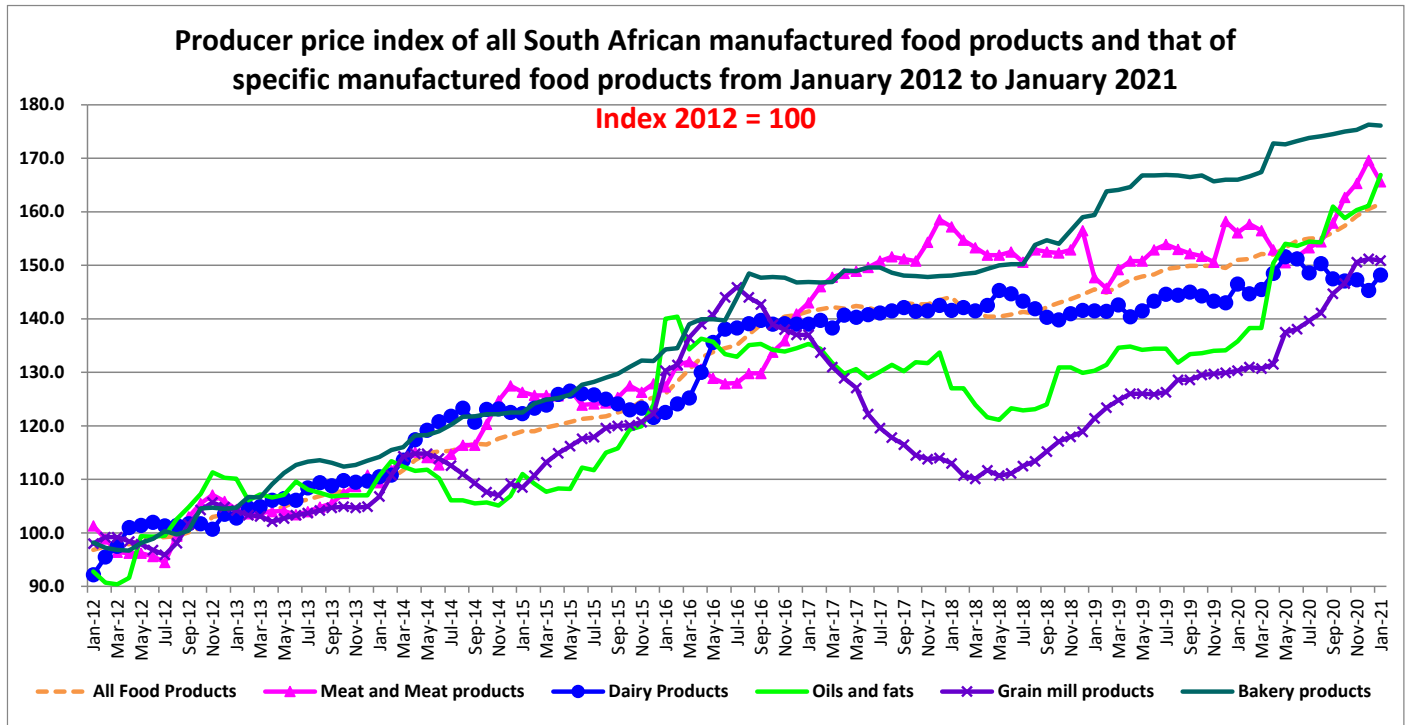
**FUTURE PRICES OF SOYABEANS IN SOUTH AFRICA (R/TON) ON 15 FEBRUARY 2021 AND 11 NOVEMBER 2020, ACCORDING TO THE SAFEX**

	<b>A CLOSING BID 11 November 2020 R/Ton</b>	<b>B CLOSING BID 15 February 2021 R/Ton</b>	<b>C Percentage increase from A to B</b>
<b>March 2021</b>	8 394	8 849	5.4
<b>May 2021</b>	7 491	7 770	3.7
<b>July 2021</b>	7 541	7 874	4.4
<b>September 2021</b>	7 591	7 974	5.0
<b>December 2021</b>		8 056	

25) Table prepared by the Office of SAMPRO based on information as obtained from the SAFEX website on 15 February 2021.

Graph 10<sup>26)</sup>

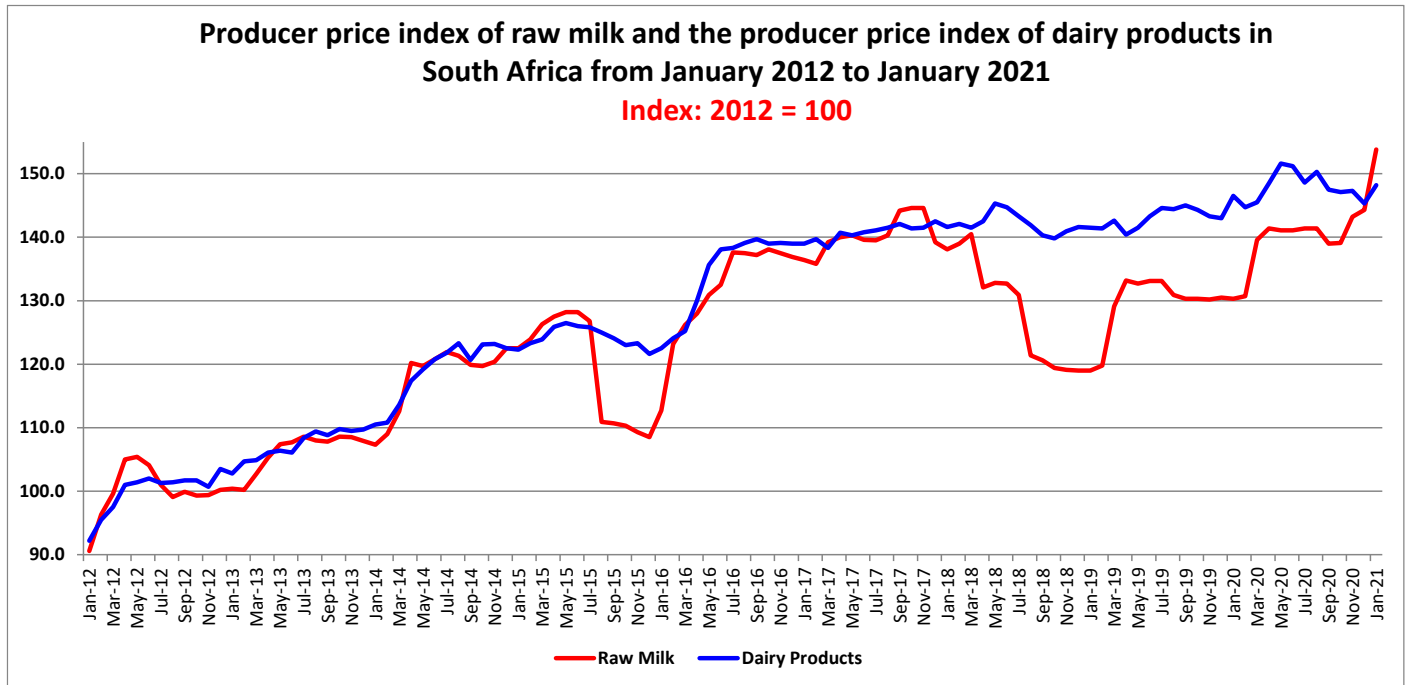
## PRODUCER PRICE INDICES OF MANUFACTURED FOOD PRODUCTS IN SOUTH AFRICA FROM JANUARY 2012 TO JANUARY 2021



26) 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 11<sup>27)</sup>

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



27) 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 14<sup>28)</sup>

**CHANGES IN THE RETAIL SALES QUANTITIES FROM 2019 TO 2020, AND CHANGES IN THE RETAIL PRICES FROM DECEMBER 2019 TO DECEMBER 2020 OF SPECIFIC DAIRY PRODUCTS**

PRODUCT	CHANGE IN DEMAND (QUANTITY)	CHANGE IN RETAIL PRICES
	PERCENT	PERCENT
FRESH MILK	-7.9	2.8
LONG LIFE MILK (UHT MILK)	9.9	4.3
FLAVOURED MILK	-10.6	4.7
YOGHURT	9.1	2.2
MAAS	6.2	1.0
PRE-PACKAGED CHEESE	14.8	3.8
CREAM CHEESE	2.2	9.4
BUTTER	8.2	11.1
CREAM	11.2	2.2

28) Table prepared by the Office of SAMPRO based on the results of surveys by “ACNielsen Marketing and Media”. Non-retail sales such as sales to industrial buyers are not part of the surveys.



Table 15<sup>29)</sup>

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

PRODUCT	Sales in the month of December 2020 versus the sales in the month of November 2020	Sales in the 3 months from October 2020 to December 2020 versus the sales in the 3 months from October 2019 to December 2019	Sales in the 6 months from July 2020 - December 2020 versus the sales in the 6 months from July 2019 to December 2019	Sales in the 9 months from April 2020 to December 2020 versus the sales in the 9 months from April 2019 to December 2019	Sales in the 12 months from January 2020 to December 2020 versus the sales in the 12 months from January 2019 to December 2019
	percent		percent		percent
Fresh Milk	-9.4	-9.3	-9.1	-9.0	-7.9
UHT milk	6.9	5.7	7.3	9.3	9.9
Flavoured milk	-8.1	-7.2	-10.4	-11.7	-10.6
Yoghurt	8.4	5.9	6.2	9.6	9.1
Maas	1.1	1.8	3.3	5.7	6.2
Pre-packaged cheese	13.4	10.2	10.8	15.0	14.8
Cream cheese	1.1	-0.6	-0.5	3.1	2.2
Butter	-3.2	1.7	6.7	10.6	8.2
Cream	4.6	7.7	11.0	14.7	11.2

*29) Table prepared by the Office of SAMPRO based on the results of surveys by "ACNielsen Marketing and Media".  
Non-retail sales such as sales to industrial buyers, are not part of the surveys.*

Table 16<sup>30)</sup>

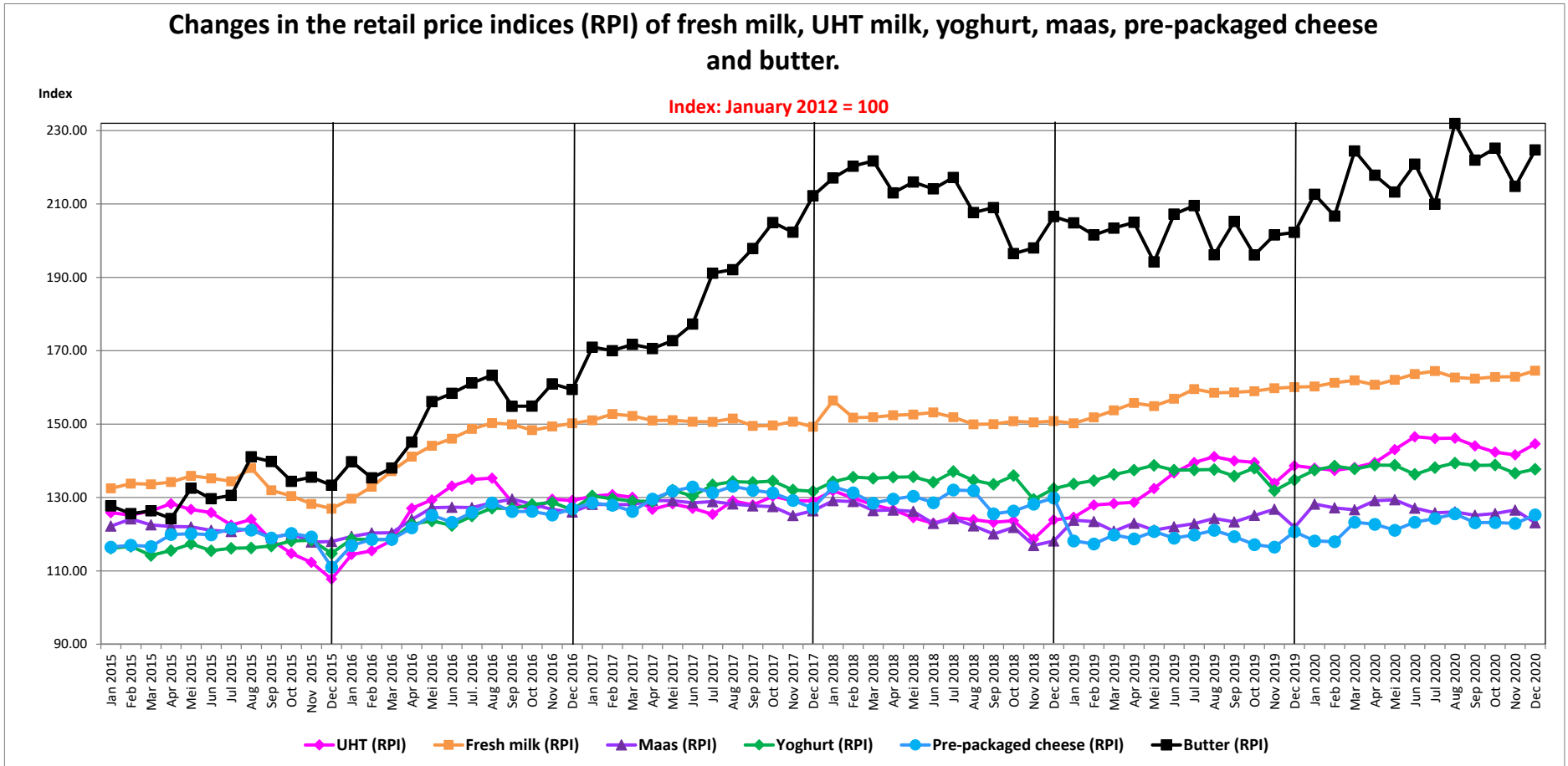
**THE AVERAGE RETAIL PRICES OF SPECIFIC DAIRY PRODUCTS IN DECEMBER 2020 IN SOUTH AFRICA, COMPARED TO THE AVERAGE RETAIL PRICES OF THE PRODUCTS CONCERNED IN SPECIFIC MONTHS OF 2018 TO 2020.**

PRODUCT	December 2020 versus November 2020	December 2020 versus September 2020	December 2020 versus June 2020	December 2020 versus March 2020	December 2020 versus December 2019	December 2020 versus June 2019	December 2020 versus December 2018
	(1 month ago)	(3 months ago)	(6 months ago)	(9 months ago)	(12 months ago)	(18 months ago)	(24 months ago)
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
FRESH MILK	1.0	1.3	0.6	1.6	2.8	4.9	8.9
UHT MILK	2.1	0.4	-1.3	4.7	4.3	5.8	16.4
FLAVOURED MILK	9.6	1.7	-0.6	3.6	4.7	6.1	10.4
YOGHURT	0.8	-0.7	1.0	-0.05	2.2	0.2	3.6
MAAS	-2.7	-1.6	-3.1	-2.8	1.0	0.9	3.0
PRE-PACKAGED CHEESE	1.9	1.7	1.6	1.6	3.8	5.3	6.5
CREAM CHEESE	3.0	3.8	3.7	8.5	9.4	11.4	14.6
BUTTER	4.6	1.2	1.7	0.1	11.1	8.4	11.1
CREAM	4.5	3.0	2.8	2.9	2.2	7.7	10.6

30) Table prepared by the Office of SAMPRO based on the results of surveys by "ACNielsen Marketing and Media".  
Non-retail sales such as sales to industrial buyers, are not part of the surveys.

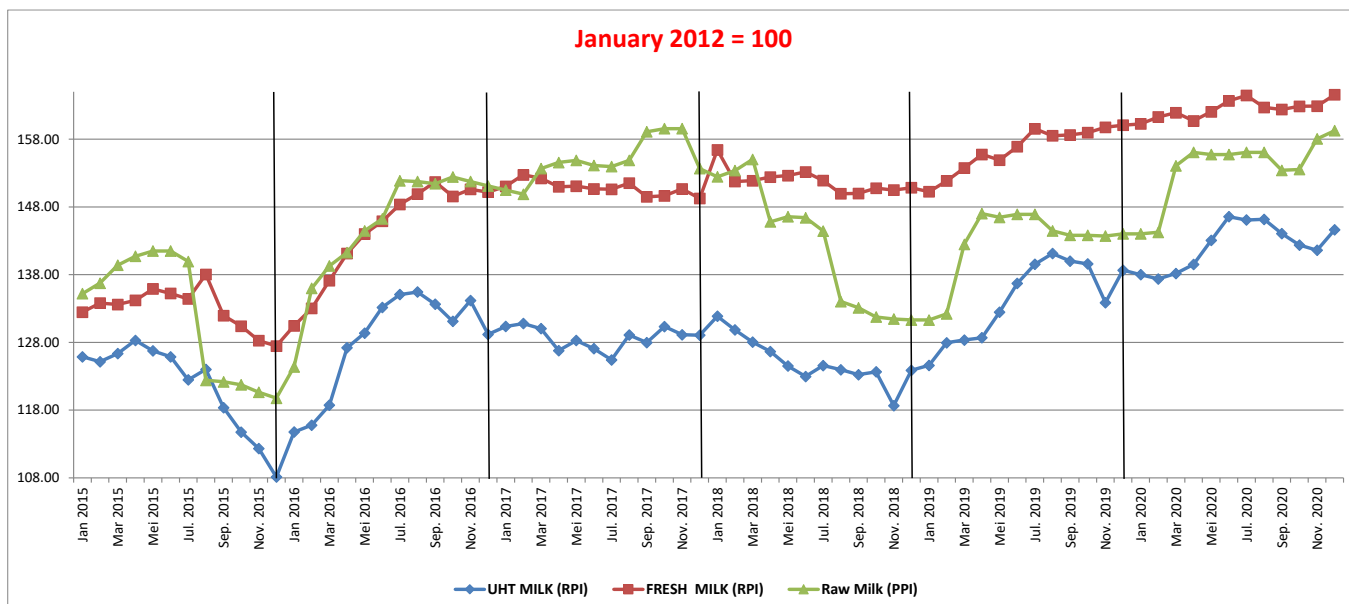
Graph 12<sup>31)</sup>

**THE RETAIL PRICE INDICES (RPI) OF SPECIFIC DAIRY PRODUCTS, FROM JANUARY 2015 TO DECEMBER 2020**



31) Graph prepared by the Office of SAMPRO based on the results of surveys by "ACNielsen Marketing and Media".  
 Non-retail sales such as sales to industrial buyers, are not part of the surveys.

**Graph 13<sup>32)</sup>**  
**THE PRODUCER PRICE INDEX (PPI) OF RAW MILK AND THE RETAIL PRICE INDICES (RPI) OF FRESH MILK AND UHT MILK, FROM JANUARY 2015 TO DECEMBER 2020**



**INCREASE IN THE QUANTITY OF RAW MILK PURCHASES RELATIVE TO PREVIOUS YEAR (PERCENT)<sup>33)</sup>**

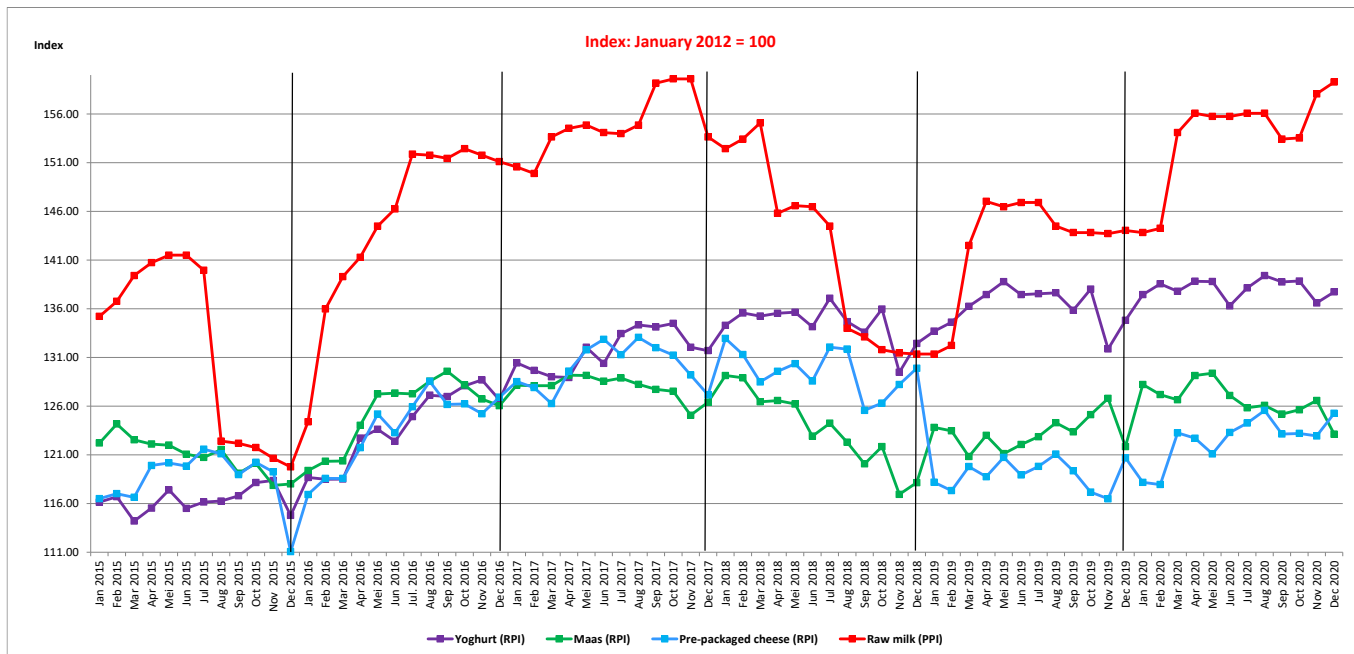
2015	2016	2017	2018	2019	2020 Est
6.37	-0.45	3.02	4.82	0.65	-0.60

32) Graph prepared by the Office of SAMPRO based on information obtained from AC Nielsen Marketing and Media and Statistics South Africa

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

**Graph 14<sup>34)</sup>**

**THE PRODUCER PRICE INDEX (PPI) OF RAW MILK AND THE RETAIL PRICE INDICES (RPI) OF YOGHURT, MAAS AND PRE-PACKAGED CHEESE, FROM JANUARY 2015 TO DECEMBER 2020**



**INCREASE IN THE QUANTITY OF RAW MILK PURCHASES RELATIVE TO PREVIOUS YEAR (PERCENT)<sup>35)</sup>**

2015	2016	2017	2018	2019	2020 Est
6.37	-0.45	3.02	4.82	0.65	-0.60

34) Graph prepared by the Office of SAMPRO based on information obtained from AC Nielsen Marketing and Media and Statistics South Africa

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

Table 17<sup>33)</sup>

**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 2020**

YEAR	Percentage difference <sup>34)</sup>		
	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
<b>Average</b>	<b>7.9</b>	<b>-0.6</b>	<b>4.3</b>
2020	4.3	0.4	2.3

33) Table prepared by the Office of SAMPRO based on the results of surveys by AC Nielsen Marketing and Media. Non-retail sales such as sales to industrial buyers are not part of the surveys.

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