

TRENDS IN RESPECT OF THE PRODUCER PRICE INDICES OF UNPROCESSED MILK AND DAIRY PRODUCTS UP TO NOVEMBER 2021

Synopsis

- *Of the 5 groups of primary agricultural products covered by this report (See Tables 1, 2 and 3), the change in the producer price index of milk (which measures the change in the prices of unprocessed milk achieved by unprocessed milk producers), shows:*
 - *That the price index for unprocessed milk is one of four of the five agricultural products of which the price index increased from October to November 2021, and the increase is the fourth highest;*
 - *The second highest increase in the 12 months up to November 2021; and*
 - *The second highest increase in the 118 months from January 2012 to November 2021.*
- *Of the 9 groups of manufactured food products covered by this report (See Tables 4, 5 and 6), the change in the producer price index of dairy products, which measures the change in the prices of a specific group of dairy products (not all dairy products) achieved by producers of processed and manufacturers of the other relevant dairy products, shows:*
 - *That the dairy products group is one of two of the nine manufactured food groups of which the price index decreased from October to November 2021, and the decrease is the second highest;*
 - *The fifth highest increase in the 12 months up to November 2021; and*
 - *The fifth highest increase in the 118 months from January 2012 to November 2021.*

Note paragraphs 2 and 3 of this report regarding the amendment by SARS of the composition of the group of products used to calculate the producer price index of dairy products.

- *The producer price index of unprocessed milk in November 2021, is 0.5 percent higher than in October 2021. The producer price index of dairy products decreased with 1.2 percent in the same period.*
- *From November 2020 to November 2021 (12-month period), the producer price index of unprocessed milk increased with 11.0 percent, whilst the producer price index of dairy products increased with 6.3 percent in the same period.*
- *From January 2012 to November 2021 (118-month period), the producer price index of unprocessed milk increased with 75.4 percent, whilst the producer price index of dairy products increased with 69.8 percent in the same period.*
- *The producer price index of unprocessed milk, with 2000 as base year was, from August 2006 to November 2021, higher than that of dairy products. (See Graph 3 of Annexure B).*
- *In November 2021, the producer price index of unprocessed milk, (2012 as base year) was 1.5 percent higher than that of dairy products, while in November 2020, the producer price index of unprocessed milk was 2.8 percent lower than that of dairy products. In 35 of the 119 months from January 2012 to November 2021, the producer price index of unprocessed milk (2012 as base year) was higher than that of dairy products. (See Graph 4 of Annexure B).*

Synopsis (Continue)

- *In November 2021, the producer price index of unprocessed milk (2012 base year), was 7.7 percent lower than that of “cereals and other crops” and in November 2020, the producer price index of unprocessed milk was 12.9 percent lower than that of “cereals and other crops”;*
- *The above represents the position of the dairy industry as a whole (as measured by Statistics South Africa) and the position of individual processors and unprocessed milk producers can differ meaningfully from the position of the dairy industry as a whole; and*
- *Producer price indices are indications, at a macro level, of the trends of the changes of the prices of the products concerned. As market signals, producer price indices should be interpreted with care and by taking into consideration the available information regarding other key variables, which are also part of market signals for the dairy industry.*



TRENDS IN RESPECT OF THE PRODUCER PRICE INDICES OF UNPROCESSED MILK AND DAIRY PRODUCTS UP TO NOVEMBER 2021

This report was compiled by the Office of SAMPRO and forms part of the Industry Information Project of SAMPRO. The purpose of the project is to make market signals available to members and other interested parties, which is a prerequisite for effective competition, as envisaged by the Competition Act.

All activities of the Industry Information Project of SAMPRO are designed and implemented in accordance with the Competition Act and independently from commercial interest of any and all the members of SAMPRO.

Introduction

1. Statistics South Africa (Stats SA) published producer price indices for, amongst other, unprocessed milk which measures on a monthly basis, the change of the prices for unprocessed milk received by unprocessed milk producers, and dairy products which measures the change of the prices received by producers of processed milk and manufacturers of other dairy products for a specific basket of dairy products.
2. The base year of the producer price indices of Stats SA changed in 2000, 2012, 2016 and again in December 2020. *The basket of dairy products and the contribution of each of the products included in the basket, has changed as follows:*

PRODUCTS INCLUDED	DECEMBER 2016 BASE YEAR PERCENTAGE	DECEMBER 2020 BASE YEAR PERCENTAGE
Full cream fresh milk	22.2%	22.9%
Full cream UHT milk	29.0%	20.7%
Yogurt	25.0%	25.6%
Cheddar cheese	23.8%	21.4%
Ice cream	-	9.4%

3. *Dairy products like maas, cheese other than cheddar, butter and milk powder, are not included in the relevant basket of dairy products. The Office of SAMPRO is interacting with Stats SA regarding the composition of the basket and what the contribution of each of the products should be, as for example, the relative contributions of fresh milk and UHT milk are not correct.*
4. Towards the end of 2012, Stats SA reviewed the producer price indices and from January 2013, the index for unprocessed milk was replaced with a combined index for unprocessed milk and eggs. After discussions with Stats SA, the request from the Office of SAMPRO was approved to provide a separate producer price index for unprocessed milk to SAMPRO and the information is reflected in this report.

5. In the monthly analyses of Stats SA, the emphasis is on the change in the producer price indices from the previous month and on the change in the last 12 months. These changes are important market signals, but, if it is viewed in isolation, can be misleading because these changes should be assessed in light of:
 - a) The movement of the producer price indices in the period before the last 12 months; and
 - b) The movement of the producer price indices of other products.
6. In the next three sections of this report, key observations are made regarding:
 - a) The changes in the producer price indices of unprocessed milk and dairy products;
 - b) The changes in the producer price indices of unprocessed milk and other primary agricultural products; and
 - c) The changes in the producer price indices of dairy products and other manufactured food products.
7. Annexure A of this report contains:
 - a) Tables regarding the changes of the producer price index of unprocessed milk versus the changes in the producer price indices of other primary agricultural products;
 - b) Tables regarding the changes of the producer price index of dairy products versus the changes in the producer price indices of other manufactured food products; and
 - c) A table regarding the changes of the producer price index of dairy products versus the changes in the producer price index of unprocessed milk.
8. Annexure B contains five graphs namely:
 - a) Graph 1, indicating the producer price index of unprocessed milk and the producer price indices of other primary agricultural products with 2012 as the base year;
 - b) Graph 2, indicating the producer price index of dairy products and the producer price indices of selected other manufactured food products with 2012 as the base year;
 - c) Graph 3, indicating the producer price indices of unprocessed milk and dairy products since January 2005, with 2000 as the base year;
 - d) Graph 4, indicating the indices referred to under (c) from January 2012, with 2012 as the base year; and
 - e) Graph 5, indicating the producer price indices of dairy products, food products and all South African products since January 2000, with 2000 as the base year.

Producer price indices of unprocessed milk and dairy products

9. The key observations in respect of Table 7 of Annexure A are:
 - The price index of unprocessed milk in November 2021, is 0.5 percent higher than in October 2021, whilst the price index of dairy products decreased with 1.2 percent in the same period;
 - From November 2020 to November 2021 (12-month period), the price index of unprocessed milk increased with 11.0 percent, whilst the price index of dairy products increased with 6.3 percent in the same period; and
 - From January 2012 to November 2021 (118-month period), the price index of unprocessed milk increased with 75.4 percent and the price index of dairy products increased with 69.8 percent in the same period.

10. The interaction between the price indices of unprocessed milk and dairy products is clearly shown in Graph 3 and Graph 4 of Annexure B.

Producer price indices of unprocessed milk and other primary agricultural products

11. The key observations in respect of Tables 1, 2, and 3 of Annexure A are:
- a) The price index of unprocessed milk in November 2021, is 0.5 percent higher than in October 2021, which is the fourth highest increase of the four of the five primary agricultural products of which the price indices increased;
 - b) From November 2020 to November 2021 (12-month period), the price index of unprocessed milk increased with 11.0, which is the second highest increase of the four primary agricultural products of which the price indices increased;
 - c) From January 2012 to November 2021 (118-month period), the price index of unprocessed milk increased with 75.4 percent, which is the second highest increase of the five primary agricultural products of which the price indices increased;
 - d) The price index of unprocessed milk decreased in the first two months, the sixth, seventh and twelfth months of 2017, increased in March to May and August to October 2017, and remained unchanged in November 2017;
 - e) The price index of unprocessed milk decreased in January, April, June, July, August, September October, November and December 2018, and increased in February, March and May 2018;
 - f) The price index of unprocessed milk remained the same in January, July and October 2019, increased in February, March, April, June and December 2019, and decreased in May, August, September, and November 2019;
 - g) The price index of unprocessed milk decreased in January, May and September 2020, remained the same in June and August 2020 and increased in February, March, April, July, October, November and December 2020; and
 - h) The price index of unprocessed milk increased in the months of January, February, March, April, May, June and November 2021 and decreased in July, August, September and October 2021.
12. The movements of the price indices of unprocessed milk and other primary agricultural products are also illustrated in Graph 1 of Annexure B.

Producer price indices of dairy products and other manufactured food products

13. The key observations in respect of Tables 4, 5, and 6 of Annexure A are:
- a) The price index of dairy products in November 2021, is 1.2 percent lower than in October 2021, which is the second highest decrease of the two groups of food products of which the price indices decreased;
 - b) From November 2020 to November 2021 (12-month period), the price index of dairy products increased with 6.3 percent, which is the fifth highest increase of the nine groups of food products of which the price indices increased;
 - c) From January 2012 to November 2021 (118-month period), the price index of dairy products increased with 69.8 percent, which is the fifth highest increase of the nine groups of food products;

- d) The price index of dairy products remained unchanged in January 2017, increased in February, April, June to September, November and December 2017, and decreased in the months of March, May and October 2017;
 - e) The price index of dairy products decreased in January, March, June, July, August September and October 2018, and increased in February, April, May, November and December 2018;
 - f) The price index of dairy products decreased in January, February, April, May, August, October, November and December 2019, and increased in March, June, July and September 2019;
 - g) The price index of dairy products increased in January, March, April, May, August and November 2020, and decreased in February, June, July, September, October and December 2020; and
 - h) The price index of dairy products increased in the months of January, February, March, April, May, June, July, September and decreased in August, October and November 2021.
14. The movements of the price indices of dairy products and other manufactured food products are also illustrated in Graph 4 and Graph 5 of Annexure B.

Marietjie le Roux
De Wet Jonker
Alwyn P Kraamwinkel
17 January 2022

Tables reflecting the changes of the producer price indices of unprocessed milk, other primary agricultural products, dairy products and other manufactured food products in specific periods

Table 1 ¹⁾

Change in the producer price indices of agricultural products from October to November 2021

(Index 2012 = 100)

Product	Index in October 2021	Index in November 2021	Percentage Change
Cereal and other crops	166.1	172.1	3.6
Live animals	161.7	167.1	3.4
Other animal products	189.6	193.9	2.3
Milk (unprocessed)	158.0	158.9	0.5
Fruit and Vegetables	128.8	121.8	-5.5

Table 2 ²⁾

Change in the producer price indices of agricultural products from November 2020 to November 2021 (12-month period)

(Index 2012 = 100)

Product	Index in November 2020	Index in November 2021	Percentage Change
Live animals	139.7	167.1	19.6
Milk (unprocessed)	143.2	158.9	11.0
Other animal products	181.2	193.9	7.0
Cereal and other crops	164.4	172.1	4.6
Fruit and Vegetables	127.3	121.8	-4.4

Table 3 ³⁾

Change in the producer price indices of agricultural products from January 2012 to November 2021 (118-month period)

(Index 2012 = 100)

Product	Index in January 2012	Index in November 2021	Percentage Change
Other animal products	103.9	193.9	86.6
Milk (unprocessed)	90.6	158.9	75.4
Cereal and other crops	99.7	172.1	72.6
Live animals	109.1	167.1	53.2
Fruit and Vegetables	96.6	121.8	26.1

1), 2) and 3) Tables prepared by the Office of SAMPRO based on information of Statistics South Africa with 2012 as the base year. From January 2017 the change in the 2012 index is adjusted based on the change in the price index with December 2016 as base and from January 2021, the change in the 2012 index is adjusted in the price index with December 2020 as base.

Table 4 ⁴⁾

**Increase in the producer price indices of manufactured food products from October to November 2021
(Index 2012 = 100)**

Product	Index in October 2021	Index in November 2021	Percentage change
Meat and meat products	173.4	178.8	3.1
Sugar	142.0	144.4	1.7
Grain mill products	152.3	154.6	1.5
Other food products	153.7	154.1	0.3
Oils and fats	201.3	201.6	0.2
Starches, starch products and animal feed	194.5	194.5	0.0
Bakery products	181.2	181.2	0.0
Dairy products	158.5	156.6	-1.2
Fruits and vegetable products	155.4	152.0	-2.2

Table 5 ⁵⁾

Increase in the producer price indices of manufactured food products from November 2020 to November 2021 (12-month period)

(Index 2012 = 100)

Product	Index in November 2020	Index in November 2021	Percentage Change
Oils and fats	160.3	201.6	25.7
Sugar	130.7	144.4	10.5
Starches, starch products and animal feed	176.2	194.5	10.4
Meat and meat products	165.3	178.8	8.2
Dairy products	147.3	156.6	6.3
Other food products	148.4	154.1	3.9
Fruits and vegetable products	147.0	152.0	3.5
Bakery products	175.3	181.2	3.4
Grain mill products	150.6	154.6	2.7

Table 6 ⁶⁾

Increase in the producer price indices of manufactured food products from January 2012 to November 2021 (118-month period)

(Index 2012 = 100)

Product	Index in January 2012	Index in November 2021	Percentage Change
Oils and fats	92.8	201.6	117.2
Starches, starch products and animal feed	93.7	194.5	107.6
Bakery products	98.2	181.2	84.5
Meat and meat products	101.3	178.8	76.5
Dairy products	92.2	156.6	69.8
Fruits and vegetable products	96.2	152.0	58.0
Grain mill products	98.0	154.6	57.8
Other food products	99.6	154.1	54.7
Sugar	97.4	144.4	48.3

4), 5) and 6) Tables prepared by the Office of SAMPRO based on information of Statistics South Africa with 2012 as the base year. From January 2017 the change in the 2012 index is adjusted based on the change in the price index with December 2016 as base and from January 2021, the change in the 2012 index is adjusted in the price index with December 2020 as base.

Table 7 ⁷⁾**Increase in the producer price indices of unprocessed milk and dairy products****(Index 2012 = 100)**

	Unprocessed milk Percentage increase	Dairy Products Percentage increase
October to November 2021	0.5	-1.2
November 2020 to November 2021 (12-month period)	11.0	6.3
January 2012 to November 2021 (118-month period)	75.4	69.8

Table 8 ⁷⁾**Increase in the producer price indices of selected agricultural products and manufactured food products from January 2012 to November 2021 (118-month period)****(Index 2012 = 100)**

Product	Index in January 2012	Index in November 2021	Percentage increase
All SA products	97.1	166.6	71.6
All food products	97.5	170.5	74.9
Dairy products	92.2	156.6	69.8
All Agricultural Products	101.7	157.3	54.7
Unprocessed milk	90.6	158.9	75.4

Table 9 ⁸⁾**Increase in the producer price indices of selected agricultural products and manufactured food products from January 2007 to November 2021 (180-month period)****(Index 2000 = 100)**

Product	Index in January 2007	Index in November 2021	Percentage increase
All SA products	151.1	340.6	125.4
All food products	153.0	398.6	160.5
Dairy products	155.0	355.5	129.4
All Agricultural Products	154.6	329.7	113.3
Unprocessed milk	161.9	444.7	174.7

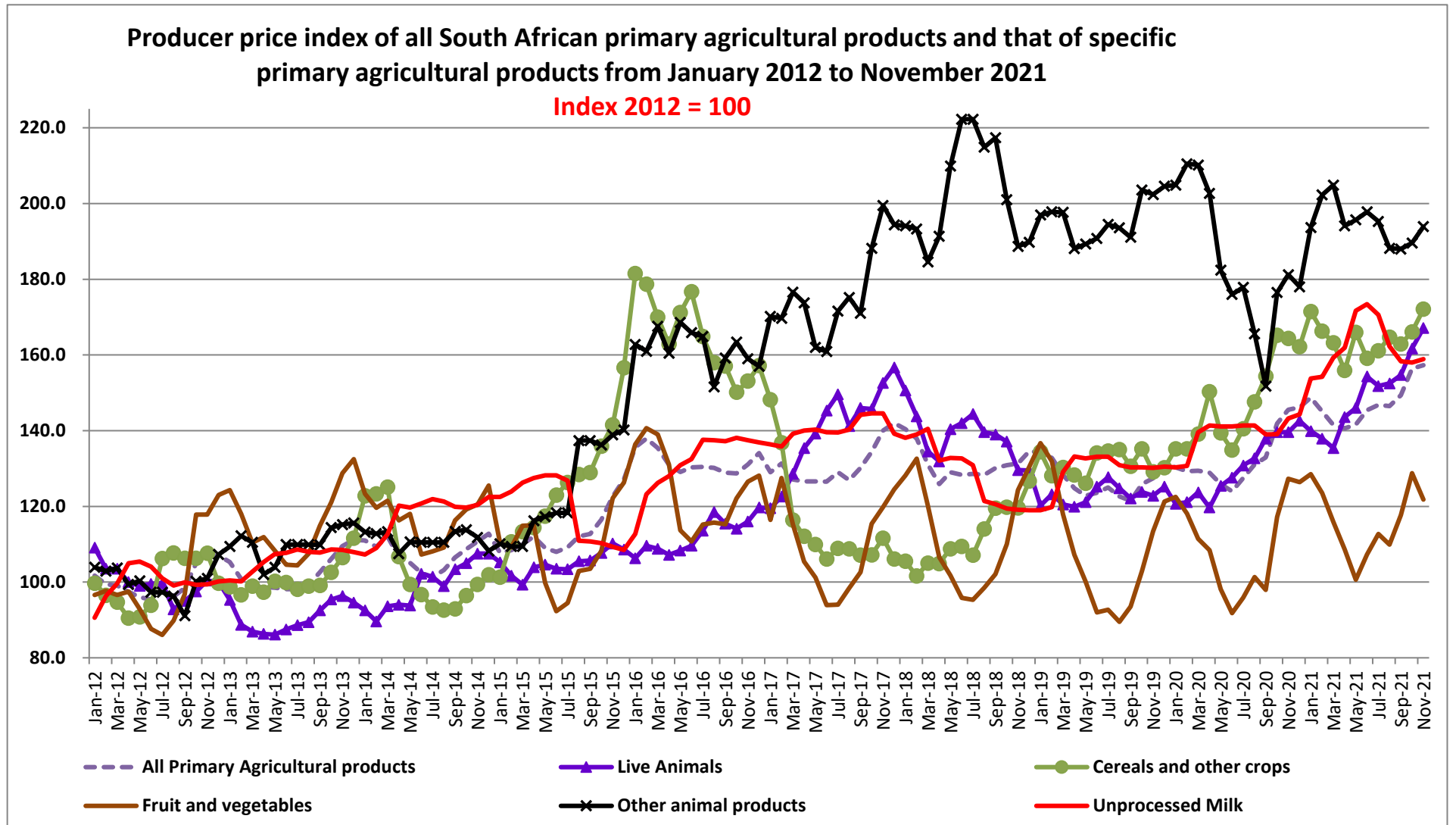
7) Table prepared by the Office of SAMPRO based on information of Statistics South Africa with 2012 as the base year. From January 2017 the change in the 2012 index is adjusted based on the change in the price index with December 2016 as base. From January 2021 the change in the 2012 index is adjusted based on the change in the price index with December 2020 as base.

8) Table prepared by the Office of SAMPRO. The table in respect of dairy products is based on information published by Statistics South Africa. The table in respect of unprocessed milk up to January 2007 is based on the price index of the Department of Agriculture, Land Reform and Rural Development, (DALRRD) with base year 2000, from January 2007 to 2012, the change in the index is as reflected by the price index with base year 2000 as published by Statistics South Africa, and from January 2012 to December 2016 the change in the index is as reflected in the price index with base year 2012 as published by Statistics South Africa. From January 2017 the change in the 2012 index is adjusted based on the change in the price index with December 2016 as base. From January 2021 the change in the 2012 index is adjusted based on the change in the price index with December 2020 as base.

Graphs reflecting the movements of the producer price indices of unprocessed milk, other primary agricultural products, dairy products and other manufactured food products

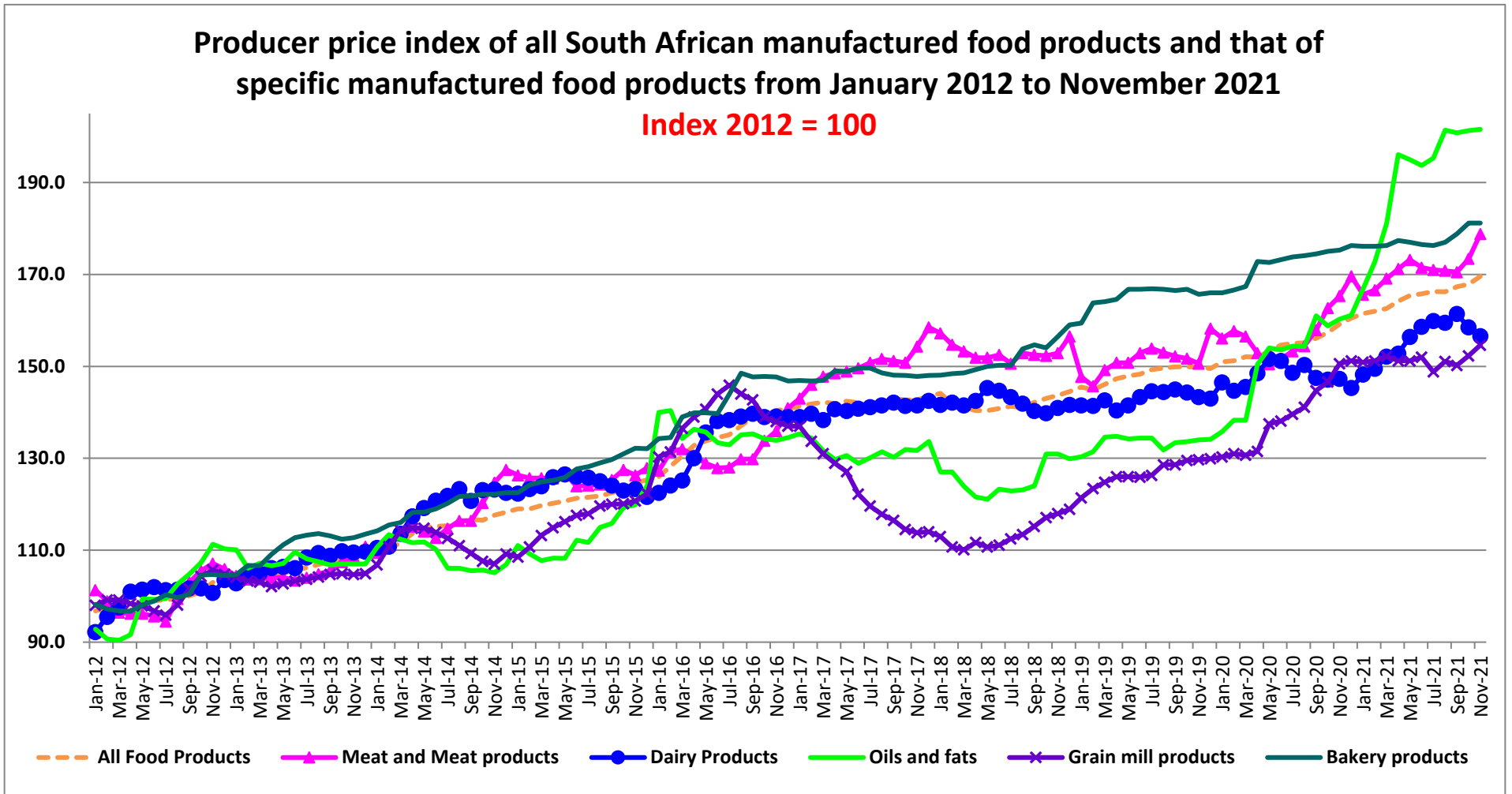
- 1) In Graph 1 the movements of the producer price index of unprocessed milk are compared to that of other primary agricultural products.
- 2) In Graph 2 the movements of the producer price index of dairy products are compared to that of selected other manufactured food products.
- 3) Graph 3, with base year 2000, shows that in 2007, the producer price index for unprocessed milk moved to higher levels than that of dairy products and that the gap which was established in 2007, was not eliminated by the movements of the two indices in the period 2007 to November 2021.
- 4) The base year of Graph 4 is 2012, and the producer price indices of both unprocessed milk and dairy products started off at 100 basis points. As a result, Graph 4 ignores the gap between the two indices which existed in January 2012, in terms of the base year 2000. In January 2012, the index for unprocessed milk, with base year 2000, was at 250.4 index points which was 16.2 percent higher than the index of dairy products at 215.5.
- 5) Graph 4 shows the typical fairly close interaction between the producer price indices of unprocessed milk and dairy products. The index of unprocessed milk in November 2021, with the base year 2012, was 158.9 index points which is 1.47 percent higher than the index of 156.6 of dairy products. In 35 of the 119 months period January 2012 to November 2021, the producer price index of unprocessed milk was higher than that of dairy products.
- 6) In Graph 5, the movements since January 2000, of the producer price index of dairy products is compared to the movements of the average producer price index of manufactured food products and the producer price index of all manufactured products.

Graph 1 ⁹⁾



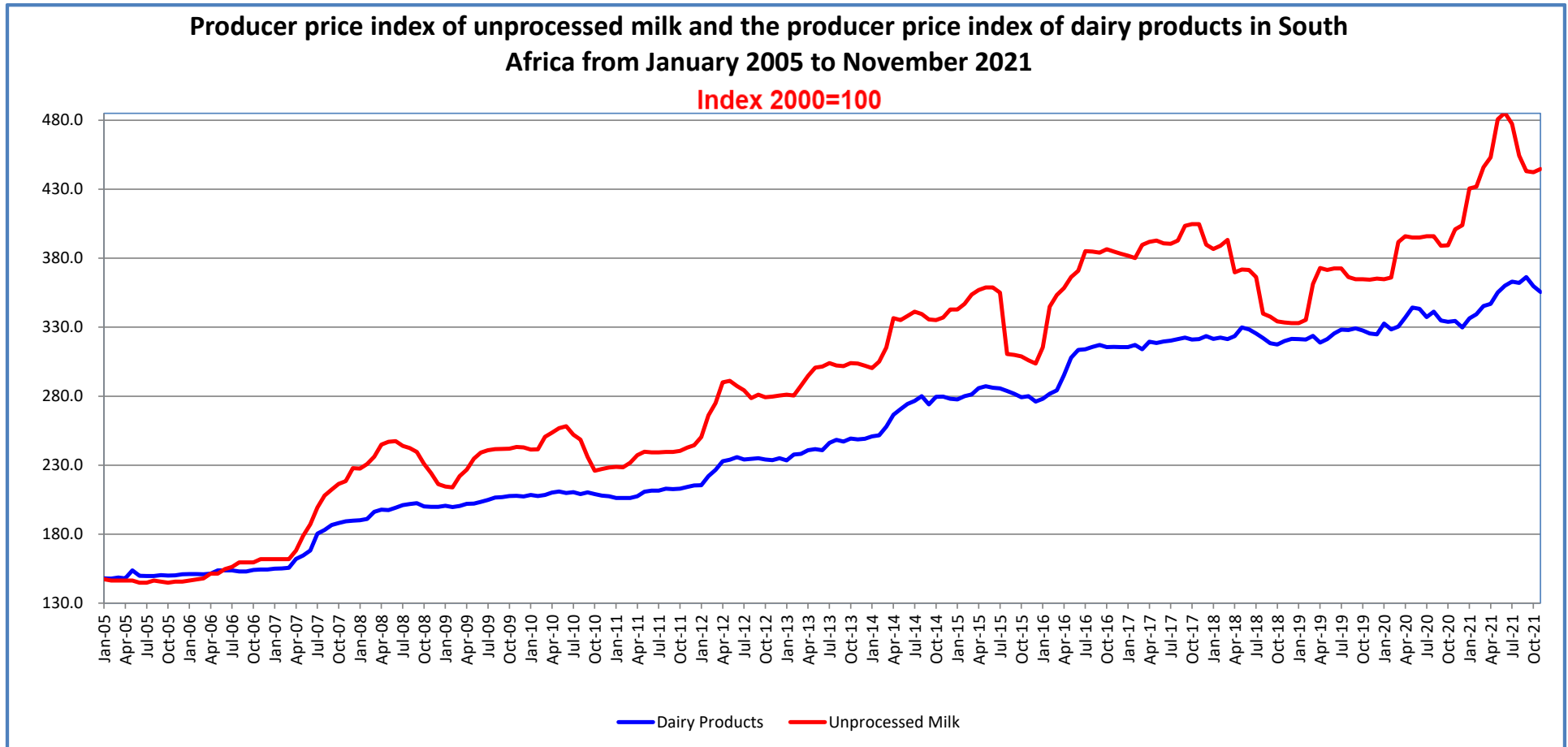
9) Graph prepared by the Office of SAMPRO based on the producer price indices with base year 2012, as published by Statistics South Africa. From January 2021 the change in the 2012 index is adjusted based on the change in the price index with December 2020 as base.

Graph 2 ¹⁰⁾



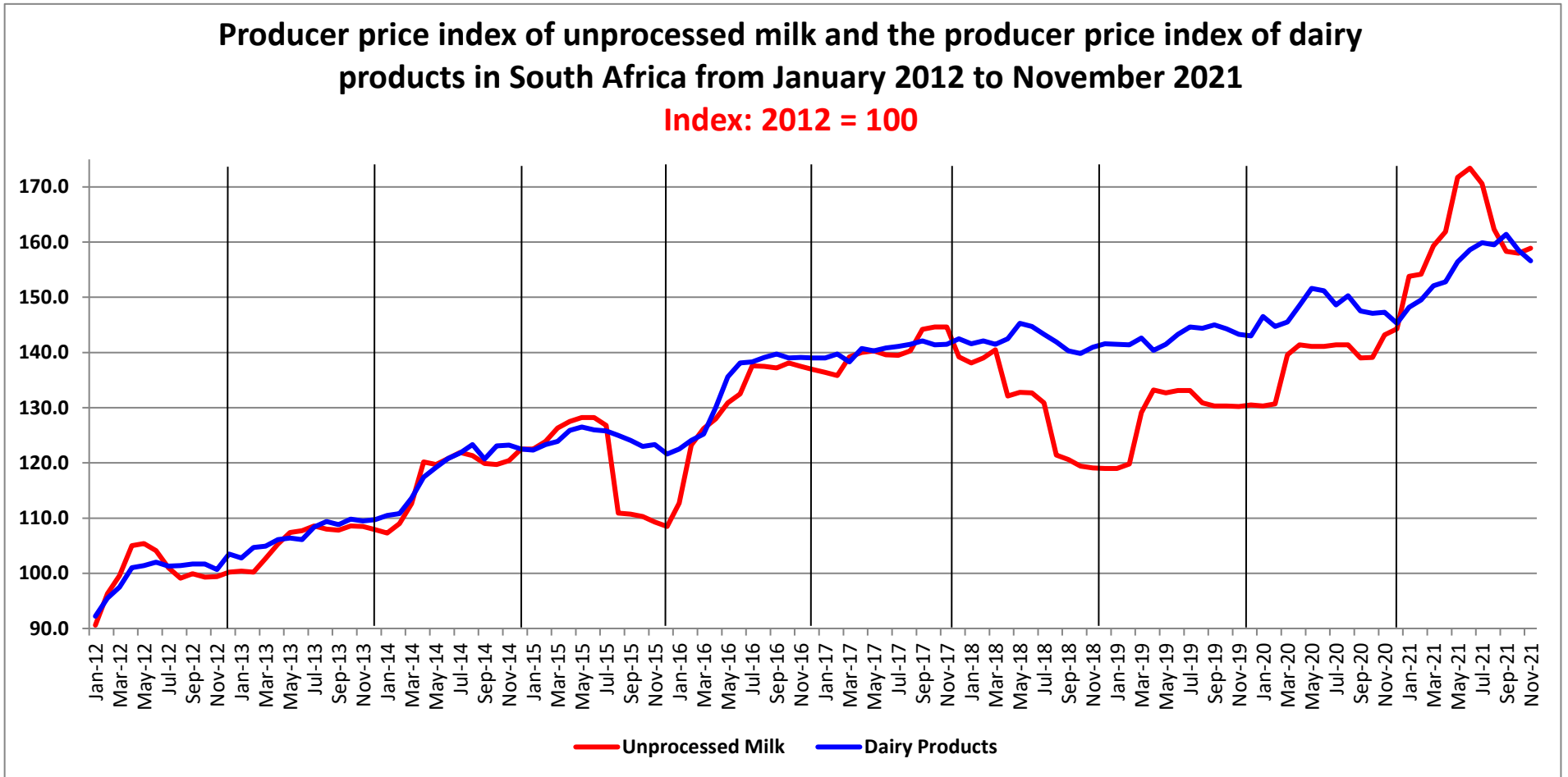
10) Graph prepared by the Office of SAMPRO based on the producer price indices with base year 2012, as published by Statistics South Africa. From January 2021 the change in the 2012 index is adjusted based on the change in the price index with December 2020 as base.

Graph 3 ¹¹⁾



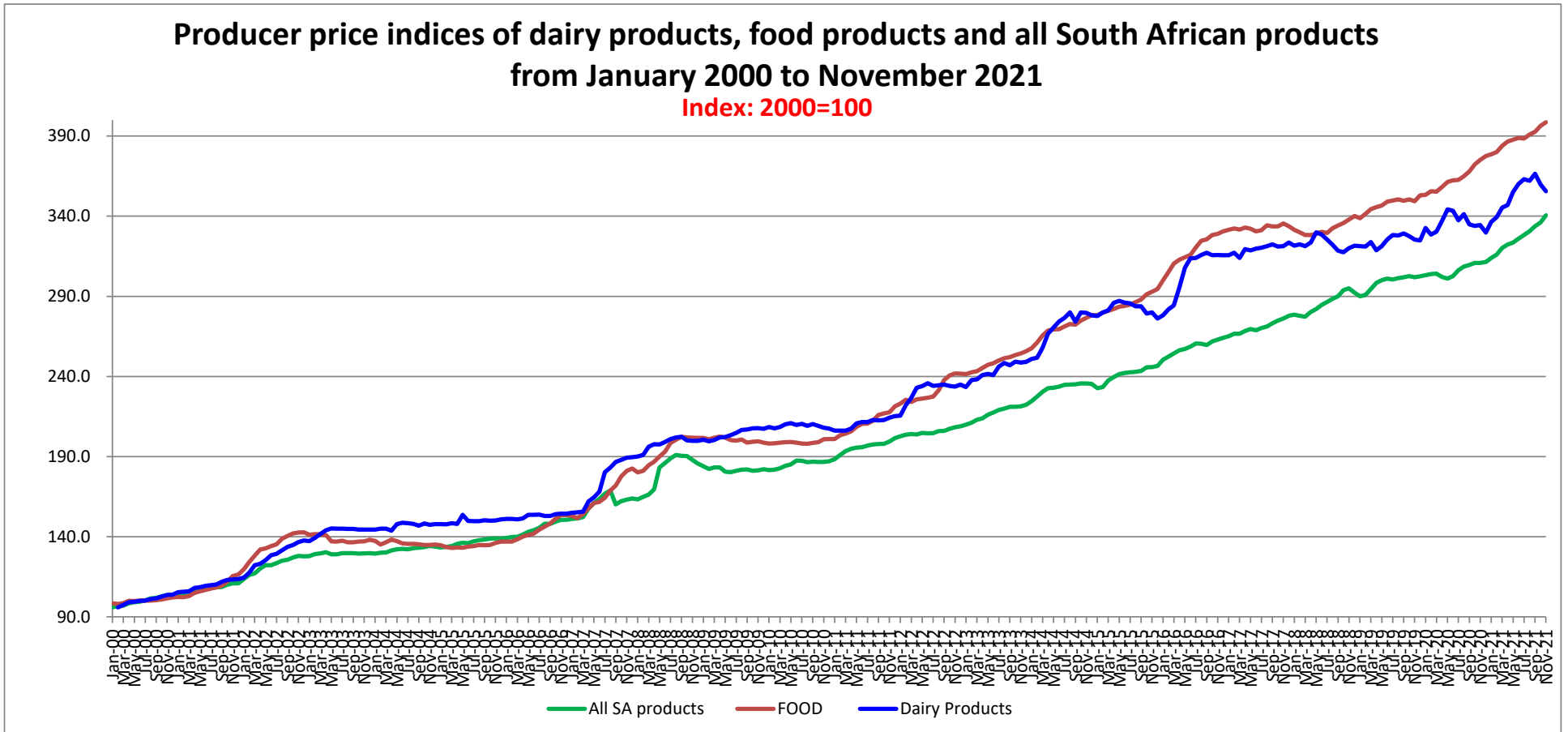
11) Graph prepared by the Office of SAMPRO. The graph in respect of dairy products is based on information published by Statistics South Africa. The graph in respect of unprocessed milk up to January 2007 is based on the price index of the Department of Agriculture, Land Reform and Rural Development with base year 2000 and from January 2007 to 2012, the change in the index is as reflected by the producer price index with base year 2000 as published by Statistics South Africa, and from January 2012 to December 2016 change in the index is as reflected in the price index with base year 2012 as published by Statistics South Africa. From January 2021 the change in the 2012 index is adjusted based on the change in the price index with December 2020 as base.

Graph 4 ¹²⁾



12) Graph prepared by the Office of SAMPRO based on the producer price indices with base year 2012, as published by Statistics South Africa. From January 2021 the change in the 2012 index is adjusted based on the change in the price index with December 2020 as base.

Graph 5 13)



13)

Graph is prepared by the Office of SAMPRO based on information of Statistics South Africa with 2000 as the base year. From January 2021 the change in the 2012 index is adjusted based on the change in the price index with December 2020 as base.