



## INPUT AND OUTPUT PRICE INDICES IN AGRICULTURE – LIVESTOCK: SEPTEMBER 2023

The evolution of the Input and Output Price Indices with base year 2015=100.0 for September 2023, according to provisional data, is as follows:

The Output Price Index in Agriculture – Livestock (excluding subsidies) increased by 17.0% in September 2023, compared with September 2022. The corresponding index in September 2022 had recorded an increase of 10.7%, compared with September 2021 (Table 1, Graph 1).

The increase of 17.0% in the Output Price Index in September 2023 compared with September 2022 (Table 1), is on account of: a) increase 18.5% of the price index in crop output group and mainly on the rate of change of the groups olive oil and fruits, and b) increase 7.3% of the price index in animal output group.

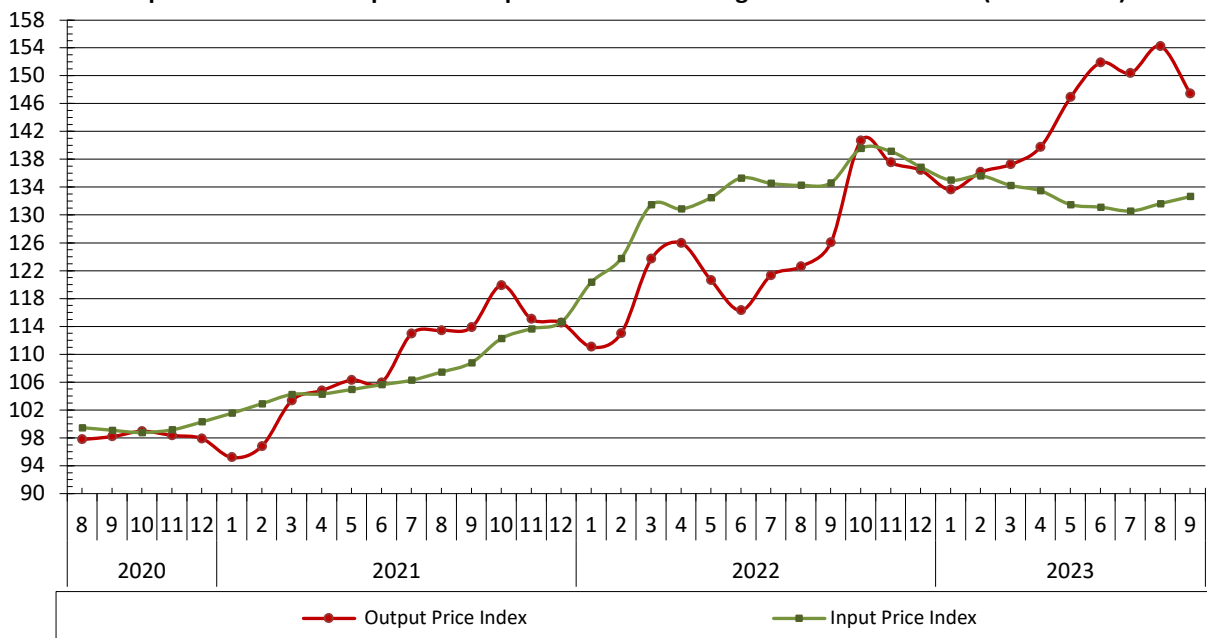
The Output Price Index in September 2023 decreased by 4.4%, in comparison with August 2023 (Table 2).

The twelve-month weighted average output index from October 2022 to September 2023 increased by 19.7%, compared with the corresponding index of the period from October 2021 to September 2022 (Table 3).

The Input Price Index in Agriculture – Livestock decreased by 1.5% in September 2023, compared with September 2022. The corresponding index in September 2022 had recorded an increase of 23.7%, compared with September 2021 (Table 4, Graph 1).

The decrease of 1.5% in the Input Price Index in September 2023 compared with September 2022 (Table 4) is on account of: a) decrease 2.9% of the price index in goods and services currently consumed in agriculture group and mainly on the rate of change of the group animal feeding stuffs and b) increase 7.2% of the price index in goods and services contributing to agricultural investment.

**Graph 1. Evolution of Input and Output Price Indices in Agriculture – Livestock (2015=100.0)**



**Information on methodological issues:**

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The Input Price Index in September 2023, increased by 0.8%, in comparison with August 2023 (Table 5).

The twelve-month average input index from October 2022 to September 2023, increased by 6.1% compared with the corresponding index of the period from October 2021 to September 2022 (Table 6).

**Table 1. Annual rates of change of the Output Price Indices in Agriculture – Livestock**

**Base year: 2015=100.0**

Code	Main groups	Monthly weighting coefficient (%)	September			Change (%)	
			2023	2022	2021	2023/2022	2022/2021
140000	AGRICULTURAL GOODS OUTPUT	9.82	147.4	126.0	113.9	17.0	10.7
100000	CROP OUTPUT	8.38	150.5	126.9	116.2	18.5	9.2
010000	Cereals (including seeds)	1.54	142.0	176.1	131.3	-19.4	34.1
020000	Industrial crops	0.52	126.8	151.9	119.5	-16.5	27.1
030000	Forage plants	0.38	122.9	113.0	90.4	8.7	25.0
040000	Vegetables and horticultural Products	1.57	160.9	122.7	113.5	31.0	8.1
050000	Potatoes (including seeds)	0.11	143.8	132.7	95.3	8.4	39.2
060000	Fruits	3.25	136.0	108.8	121.2	25.0	-10.2
070000	Wine (incl. must)	0.02	109.6	101.0	94.1	8.6	7.3
080000	Olive oil	0.94	224.2	108.4	91.0	106.8	19.1
090000	Other crop products	0.03	107.9	106.9	107.5	0.9	-0.5
130000	ANIMAL OUTPUT	1.44	129.9	121.0	100.3	7.3	20.6
110000	Animals	0.93	132.2	122.5	102.5	7.9	19.5
120000	Animal products	0.51	125.7	118.2	96.4	6.3	22.6

*Note: The indices and the percentage changes are published rounded up to one decimal figure.*

**Table 2. Monthly rates of change of the Output Price Indices in Agriculture – Livestock**

**Base year: 2015=100.0**

Code	Main groups	Weighting coefficient (%)	September 2023	August 2023	Change (%)	September 2022	August 2022	Change (%)
140000	AGRICULTURAL GOODS OUTPUT	100.00	147.4	154.2	-4.4	126.0	122.6	2.8
100000	CROP OUTPUT	71.72	150.5	157.9	-4.7	126.9	123.2	3.0
010000	Cereals (including seeds)	8.27	142.0	132.9	6.8	176.1	181.1	-2.8
020000	Industrial crops	5.60	126.8	125.7	0.9	151.9	147.8	2.8
030000	Forage plants	4.84	122.9	122.4	0.4	113.0	113.4	-0.4
040000	Vegetables and horticultural products	16.41	160.9	168.8	-4.7	122.7	122.6	0.2
050000	Potatoes (including seeds)	2.13	143.8	140.5	2.4	132.7	127.3	4.3
060000	Fruits	22.69	136.0	145.1	-6.3	108.8	112.9	-3.6
070000	Wine (incl. must)	0.30	109.6	109.6	0.0	101.0	99.0	2.0
080000	Olive oil	11.33	224.2	212.1	5.7	108.4	104.9	3.4
090000	Other crop products	0.15	107.9	107.8	0.1	106.9	107.7	-0.8
130000	ANIMAL OUTPUT	28.28	129.9	132.2	-1.8	121.0	118.8	1.8
110000	Animals	12.88	132.2	137.2	-3.7	122.5	123.1	-0.5
120000	Animal products	15.40	125.7	126.3	-0.5	118.2	113.7	4.0

*Note: The indices and the percentage changes are published rounded up to one decimal figure.*

**Table 3. Evolution of the Output Price Index in Agriculture – Livestock**

**Base year: 2015=100.0**

Year and month		Overall Index	Monthly rates of change (%)	Annual rates of change (%)	12-month weighted average index (moving average)	12-month weighted moving average rates of change (%)
<b>2021:</b>	1	95.2	-2.7	-2.3	98.8	-1.1
	2	96.8	1.7	-1.0	98.8	-1.0
	3	103.4	6.8	3.7	99.0	-0.4
	4	104.8	1.4	3.7	99.4	0.1
	5	106.3	1.4	5.3	99.8	0.5
	6	106.0	-0.3	5.7	100.3	1.1
	7	113.0	6.6	14.3	101.4	2.6
	8	113.4	0.4	16.0	102.7	3.9
	9	113.9	0.4	16.0	104.2	5.5
	10	119.9	5.3	21.2	106.6	7.8
	11	115.1	-4.0	17.0	108.0	9.1
	12	114.5	-0.5	17.0	109.5	10.6
<b>Annual Average</b>		<b>109.5</b>				
<b>2022:</b>	1	111.1	-3.0	16.6	110.5	11.8
	2	113.0	1.8	16.8	111.5	12.9
	3	123.7	9.4	19.7	113.0	14.1
	4	126.0	1.8	20.2	114.8	15.5
	5	120.6	-4.2	13.5	116.0	16.2
	6	116.3	-3.6	9.8	116.9	16.5
	7	121.4	4.3	7.4	117.6	15.9
	8	122.6	1.0	8.1	118.3	15.2
	9	126.3	3.0	10.9	119.5	14.7
	10	140.9	11.6	17.5	121.9	14.3
	11	137.6	-2.3	19.6	123.8	14.6
	12	136.4	-0.9	19.1	125.7	14.8
<b>Annual Average</b>		<b>125.7</b>				
<b>2023:</b>	1	133.6	-2.1	20.3	127.1	15.0
	2	136.2	1.9	20.5	128.6	15.3
	3	137.3	0.8	10.9	129.6	14.7
	4	139.8	1.8	10.9	130.8	13.9
	5	146.9	5.1	21.8	132.9	14.6
	6	151.9	3.4	30.6	136.0	16.4
	7	150.4	-1.0	23.9	138.3	17.7
	8	154.2	2.6	25.8	140.9	19.1
	9	147.4	-4.4	17.0	143.0	19.7
	10					
	11					
	12					
<b>Annual Average</b>						

*Note: The indices and the percentage changes are published rounded up to one decimal figure.*

**Table 4. Annual rates of change of the Input Price Indices in Agriculture – Livestock**

Base year: 2015=100.0

Code	Main groups	Weighting coefficient (%)	September			Change (%)	
			2023	2022	2021	2023/2022	2022/2021
220000	INPUT TOTAL	100.00	132.7	134.6	108.8	-1.5	23.7
200000	GOODS AND SERVICES CURRENTLY CONSUMED IN AGRICULTURE	83.21	134.4	138.5	109.5	-2.9	26.4
201000	Seeds and planting stock	4.81	116.3	112.7	103.4	3.2	8.9
202000	Energy and lubricants	22.32	153.6	157.3	119.3	-2.4	31.9
203000	Fertilizers and soil improvers	5.23	153.8	168.5	105.0	-8.7	60.5
204000	Plant protection products and pesticides	4.59	118.1	113.9	102.6	3.7	11.1
205000	Veterinary expenses	1.47	118.7	114.3	108.5	3.8	5.4
206000	Animal feeding stuffs	34.57	129.7	138.1	108.7	-6.0	27.0
207000	Maintenance of materials	3.82	126.5	120.4	104.3	5.1	15.4
208000	Maintenance of buildings	0.32	132.5	125.7	105.1	5.4	19.6
209000	Other goods and services	6.08	109.3	102.5	96.0	6.6	6.8
210000	GOODS AND SERVICES CONTRIBUTING TO AGRICULTURAL INVESTMENT	16.79	124.1	115.7	105.2	7.2	10.0
211000	Materials	14.52	125.6	116.8	106.2	7.5	10.0
211110	Rotovators and other 2wheel equipment	1.44	124.4	116.1	103.3	7.1	12.4
211120	Machinery and plant for cultivation	2.90	141.9	129.8	110.6	9.3	17.4
211130	Machinery and plant for harvesting	2.37	113.7	107.4	104.1	5.9	3.2
211140	Farm machinery and installations	3.26	127.1	118.3	106.8	7.5	10.8
211210	Tractors	0.86	119.2	110.2	102.0	8.2	8.0
211290	Other vehicles	3.69	121.1	113.2	105.7	7.0	7.1
212000	Buildings	2.27	114.4	108.6	99.1	5.4	9.6

Note: The indices and the percentage changes are published rounded up to one decimal figure.

**Table 5. Monthly rates of change of the Input Price Indices in Agriculture – Livestock**

Base year: 2015=100.0

Code	Main groups	Weighting coefficient (%)	September 2023	August 2023	Change (%)	September 2022	August 2022	Change (%)
220000	INPUT TOTAL	100.00	132.7	131.6	0.8	134.6	134.3	0.3
200000	GOODS AND SERVICES CURRENTLY CONSUMED IN AGRICULTURE	83.21	134.4	133.2	0.9	138.5	138.2	0.2
201000	Seeds and planting stock	4.81	116.3	116.9	-0.5	112.7	111.4	1.1
202000	Energy and lubricants	22.32	153.6	148.4	3.5	157.3	160.7	-2.1
203000	Fertilizers and soil improvers	5.23	153.8	156.3	-1.6	168.5	167.2	0.8
204000	Plant protection products and pesticides	4.59	118.1	118.1	0.0	113.9	113.5	0.4
205000	Veterinary expenses	1.47	118.7	118.0	0.5	114.3	113.9	0.3
206000	Animal feeding stuffs	34.57	129.7	129.9	-0.1	138.1	136.0	1.5
207000	Maintenance of materials	3.82	126.5	125.6	0.7	120.4	119.9	0.4
208000	Maintenance of buildings	0.32	132.5	132.5	0.0	125.7	122.5	2.6
209000	Other goods and services	6.08	109.3	109.3	0.0	102.5	102.0	0.5
210000	GOODS AND SERVICES CONTRIBUTING TO AGRICULTURAL INVESTMENT	16.79	124.1	123.9	0.2	115.7	114.7	0.9
211000	Materials	14.52	125.6	125.4	0.2	116.8	115.7	0.9
211110	Rotovators and other 2wheel equipment	1.44	124.4	124.2	0.1	116.1	115.4	0.6
211120	Machinery and plant for cultivation	2.90	141.9	141.8	0.0	129.8	128.4	1.1
211130	Machinery and plant for harvesting	2.37	113.7	113.4	0.3	107.4	107.4	-0.1
211140	Farm machinery and installations	3.26	127.1	127.0	0.1	118.3	116.7	1.4
211210	Tractors	0.86	119.2	119.2	0.0	110.2	109.1	1.1
211290	Other vehicles	3.69	121.1	120.6	0.5	113.2	112.0	1.1
212000	Buildings	2.27	114.4	114.2	0.2	108.6	108.1	0.5

Note: The indices and the percentage changes are published rounded up to one decimal figure.

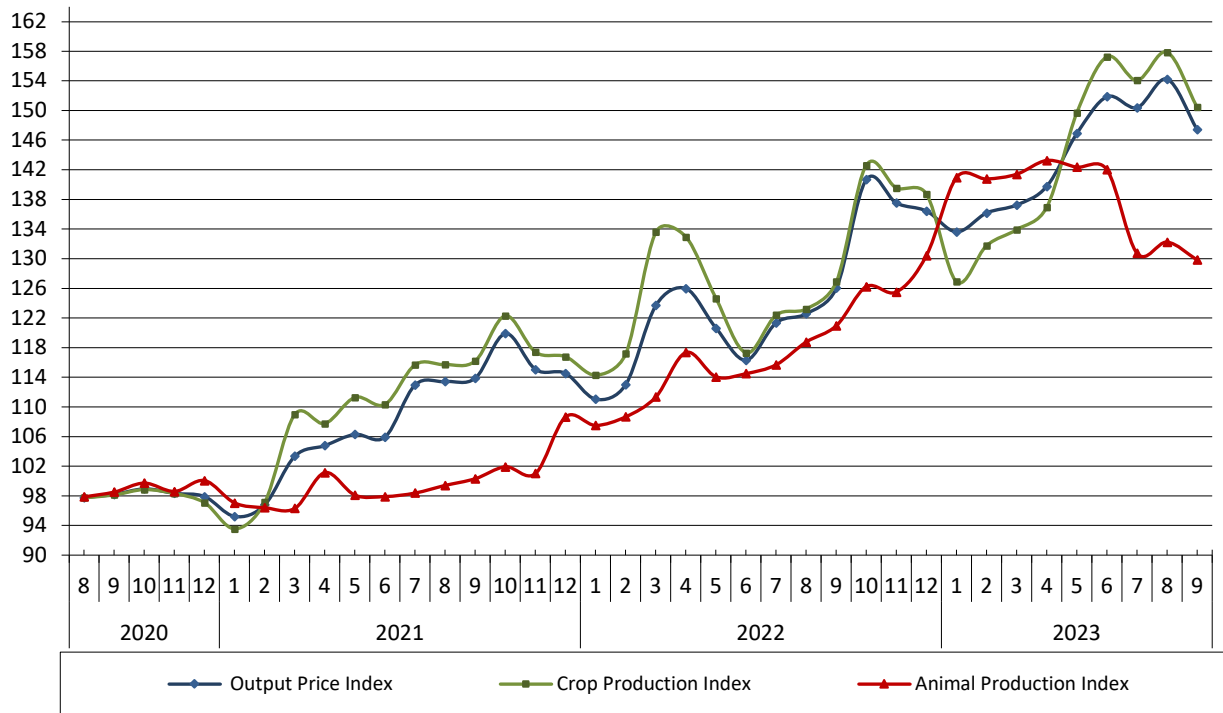
**Table 6. Evolution of the Input Price Index in Agriculture – Livestock**

**Base year: 2015=100.0**

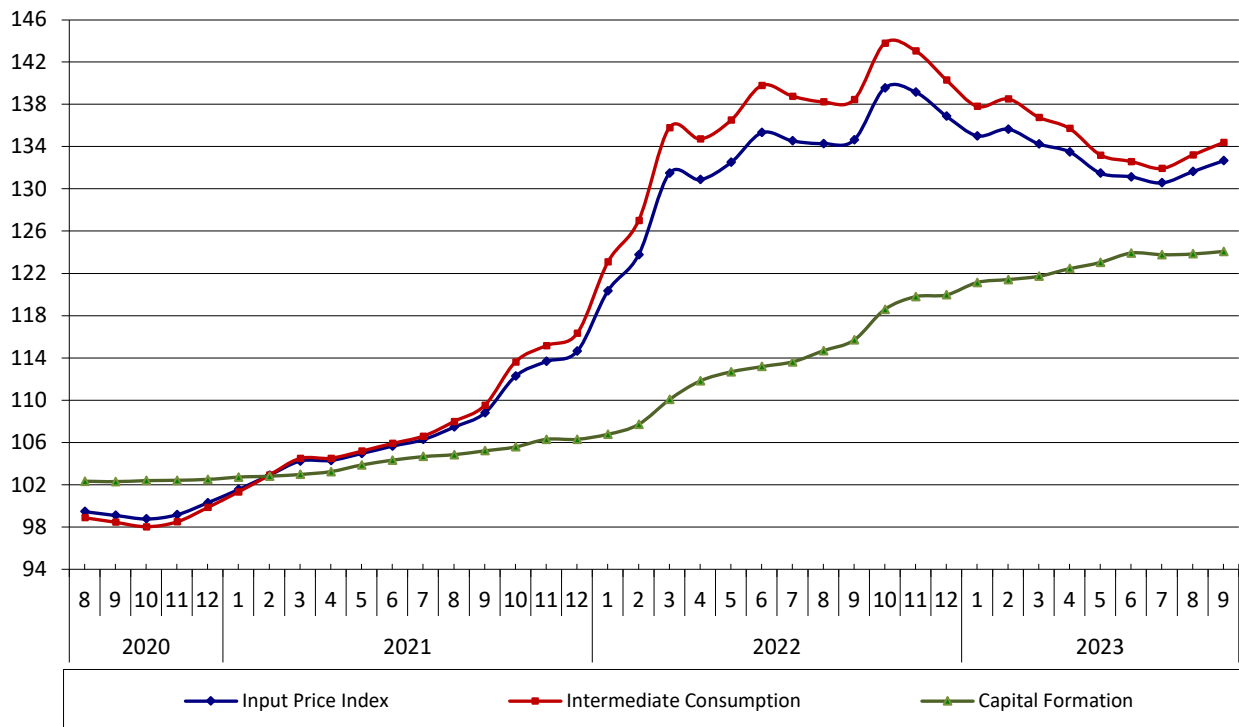
Year and month	Overall Index	Monthly rates of change (%)	Annual rates of change (%)	12-month average index (moving average)	12-month moving average rates of change (%)
<b>2021:</b> 1	101.6	1.3	-1.3	99.8	-3.0
2	102.9	1.3	0.9	99.9	-2.9
3	104.3	1.3	3.4	100.2	-2.4
4	104.3	0.1	4.8	100.6	-1.6
5	105.0	0.6	6.8	101.1	-0.6
6	105.7	0.7	6.6	101.7	0.2
7	106.3	0.6	6.8	102.2	1.0
8	107.5	1.1	8.0	102.9	1.9
9	108.8	1.2	9.8	103.7	3.0
10	112.3	3.2	13.7	104.8	4.4
11	113.7	1.2	14.6	106.0	5.9
12	114.7	0.9	14.3	107.2	7.3
<b>Annual Average</b>	<b>107.2</b>				
<b>2022:</b> 1	120.4	5.0	18.5	108.8	9.0
2	123.8	2.8	20.3	110.5	10.7
3	131.5	6.2	26.1	112.8	12.6
4	130.9	-0.5	25.5	115.0	14.4
5	132.5	1.2	26.2	117.3	16.0
6	135.3	2.1	28.1	119.8	17.8
7	134.6	-0.6	26.6	122.1	19.5
8	134.3	-0.2	25.0	124.4	20.9
9	134.6	0.3	23.7	126.5	22.0
10	139.6	3.7	24.3	128.8	22.9
11	139.2	-0.3	22.4	130.9	23.5
12	136.9	-1.6	19.4	132.8	23.8
<b>Annual Average</b>	<b>132.8</b>				
<b>2023:</b> 1	135.0	-1.4	12.2	134.0	23.2
2	135.6	0.5	9.6	135.0	22.1
3	134.3	-1.0	2.1	135.2	19.9
4	133.5	-0.6	2.0	135.4	17.7
5	131.5	-1.5	-0.8	135.4	15.4
6	131.1	-0.3	-3.1	135.0	12.7
7	130.6	-0.4	-3.0	134.7	10.3
8	131.6	0.8	-2.0	134.5	8.1
9	132.7	0.8	-1.5	134.3	6.1
10					
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12					
<b>Annual Average</b>					

*Note: The indices and the percentage changes are published rounded up to one decimal figure.*

**Graph 2. Evolution of the Output Price Index in Agriculture – Livestock and of the sub-indices of Crop and Animal Production (2015=100.0)**

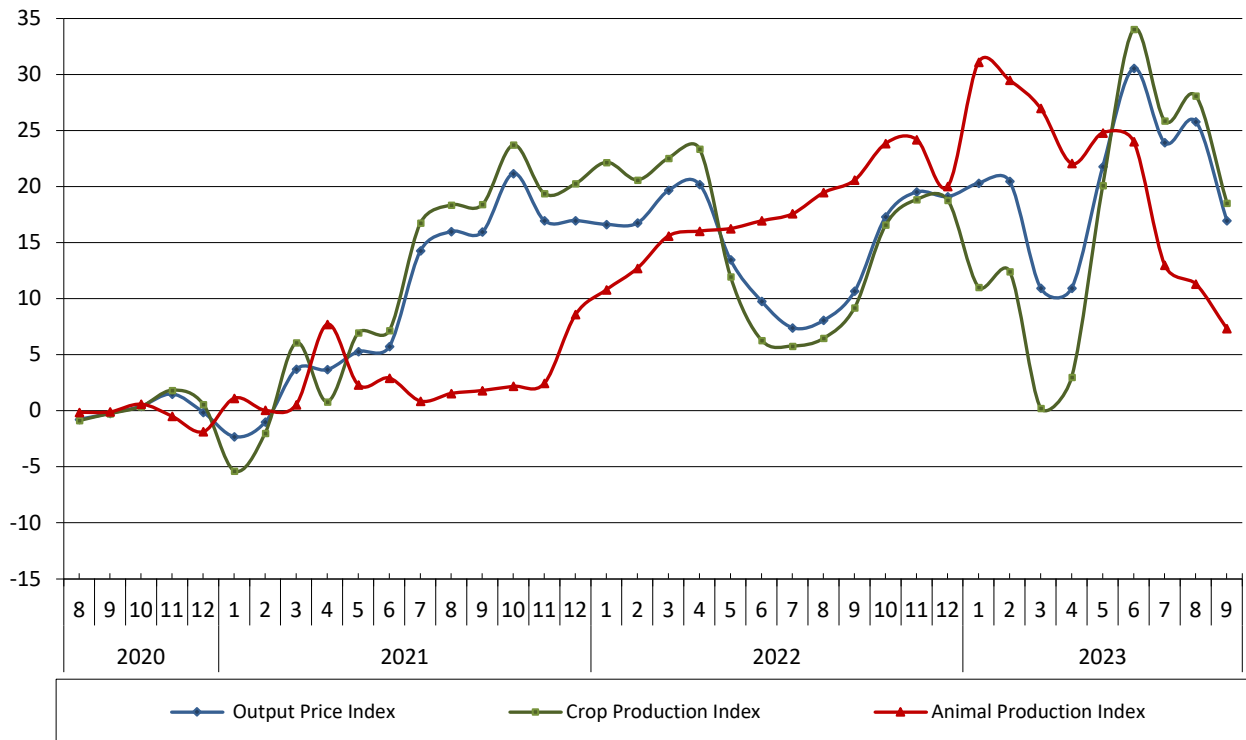


**Graph 3. Evolution of the Input Price Index in Agriculture – Livestock and of the sub-indices of Intermediate Consumption and Capital Formation (2015=100.0)**

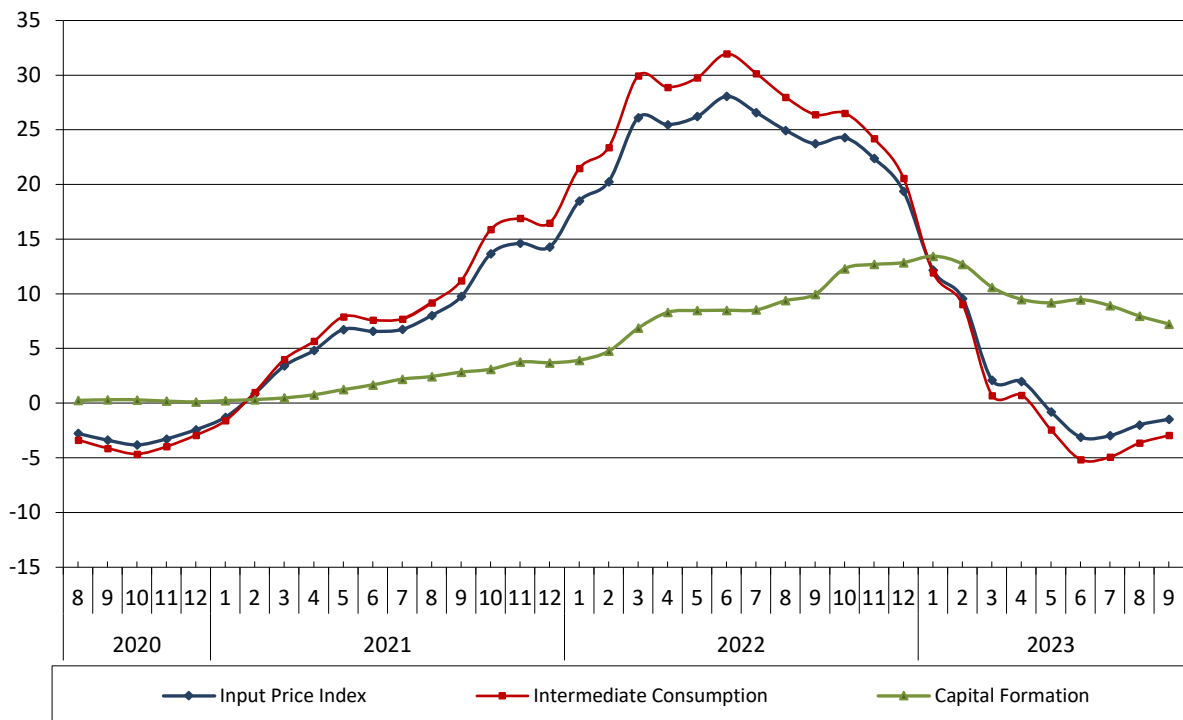




**Graph 4. Annual rates of change (%) of the Output Price Index in Agriculture – Livestock and of the sub-indices of Crop and Animal Production (2015=100.0)**



**Graph 5. Annual rates of changes (%) of the Input Price Index in Agriculture – Livestock and of the sub-indices of Intermediate Consumption and Capital Formation (2015=100.0)**



## METHODOLOGICAL NOTES

<b>Generally</b>	The compilation of the Input and Output Price Indices in Agriculture and Livestock started in 1967 with base year 1966=100.0.
<b>Purpose of the indices– definitions</b>	<p>The purpose of the Output Price Index is to measure the relative change in the prices that the producers receive in the agricultural – livestock sector from the sale of their products. The purpose of the Input Price Index is to measure the change in the prices paid by producers for the purchase of the means, goods and services used in the production process.</p> <p>The Output Price Index is composed of the crop and the animal output sub-indices. The Input Price Index consists of the sub-indices of intermediate consumption and of fixed capital formation goods.</p> <p>As regards the Output Price Index, the prices collected are the market prices of the products. The market price is defined as the price received by the producer without subsidies, transport expenses and excluding VAT or other taxes or levies.</p> <p>As regards the Input Price Index, the collected prices refer to the prices paid for by the producers to buy the goods and services they need for their agricultural and livestock production, excluding VAT and transport expenses.</p>
<b>Legal basis</b>	The compilation of the Input and Output Price Indices in the Agriculture and Livestock sector is based on voluntary agreements between Eurostat and the Member States. The foundations for these agreements were laid in the early seventies.
<b>Reference period</b>	Month.
<b>Base year</b>	2015=100.0.
<b>Revision</b>	The Input and Output Price Indices are fixed-basis indices. The most recent revision took place with base year 2015=100.0, with April 2018 as first reference month. The revision was carried out in the framework of the agreement between EU Member States and the European Union (EU), according to which, for reasons of comparability, these indices have to be revised every five (5) years and more specifically in the years ending in 0 and 5.
<b>Statistical classification</b>	According to the common methodology used by the EU Member States and Eurostat, the groups of products of the Agricultural Price Indices follow the same classification of the groups as in EAA (Economic Agricultural Accounts).
<b>Geographical coverage</b>	The indices cover the whole country.
<b>Coverage of economic activities</b>	The Input and Output Price Indices cover the transactions for products and services in the sector of agriculture and livestock. In addition, the transactions for olive oil and must - wine are covered, which are included in the manufacturing sector when their production – manufacturing process takes place at the level of agricultural unit, thus it is considered to be an activity of the agricultural sector.
<b>Seasonality</b>	Seasonality of products influences the agricultural and livestock production and as a result some products are not available every month in a calendar year. For this reason, the weighting coefficients of output products differ per month in the year.
<b>Statistical survey</b>	<p>The sources of price collection are the agricultural cooperatives (unions), which collect the final products, as well as the commercial and the industrial enterprises, which buy the final products directly from the producers.</p> <p>The price data for the output price index are collected from approximately 745 sources and price data for input prices are collected from approximately 665 sources.</p>
<b>Publication of data</b>	The Input and Output Price Indices with the new base year (2015) are released since June 2018 with April 2018 data as first reference month. The retrospective calculations of the time series of indicators before 2015 were calculated by dividing the product and group price indices by the corresponding price index of 2015 (with b.y. 2010=100.0), so that the changes (monthly and annual) of the time series indicators remain the same.
<b>References</b>	More information on the methodology concerning the compilation and calculation of the indices, as well as the time series is available on the website of ELSTAT, at: <a href="http://www.statistics.gr/en/statistics/-/publication/DKT30/">http://www.statistics.gr/en/statistics/-/publication/DKT30/</a>