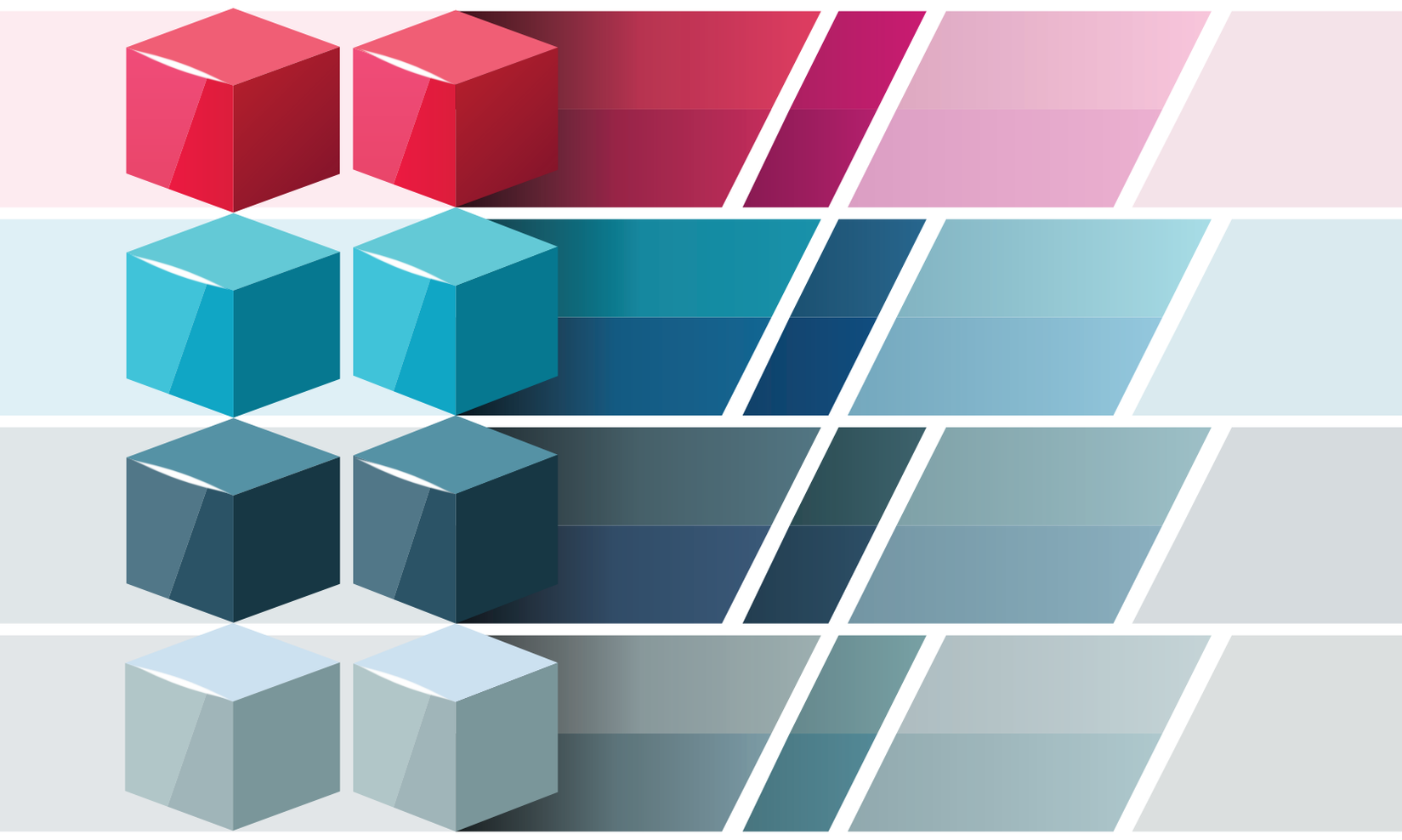
Statistical Office of the Republic of Serbia

WORKING PAPER

ECONOMIC ACCOUNTS FOR AGRICULTURE IN THE REPUBLIC OF SERBIA, 2014 - 2024



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Economic accounts for agriculture in the Republic of Serbia, 2014 – 2024

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Abbreviations

GDP	Gross domestic product
GVA	Gross value added
EAA	Economic accounts for agriculture
ESA	European system of accounts
CAP	Common agricultural policy
IAS	Institute for applied science in agriculture
LKAU	Local kind of activity unit
MoA	Ministry of agriculture, forestry and water management
MF	Ministry of finance
VAT	Value added tax
CCIS	Chamber of commerce and industry of Serbia
SORS	Statistical Office of the Republic of Serbia
SNA	System of National Accounts
DAP	Directorate for agrarian payments

Symbols

–	=	Category not applicable
...	=	Data not available
0	=	Data value under 0.5 of measurement unit
Ø	=	Average
( )	=	Incomplete or insufficiently estimated data
*	=	Corrected data
↑←	=	Covered by data in arrow direction

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INTRODUCTORY NOTES

The Statistical Office of the Republic of Serbia releases the working paper *Economic Accounts for Agriculture in the Republic of Serbia, 2013 – 2023*, where we present the results of calculations for the period from 2014 – 2024.

Economic accounts for agriculture (EAA) make an integral part of the international statistical system and are created primarily for the purpose of monitoring and evaluating the effects of an agricultural policy. As a part of the Serbian statistical system, they are expected to provide a basis for analysing the production processes of the agricultural sector and the primary income generated by these activities in the country. They also ensure international comparability of the results, as well as comparisons with the results of other economic activities in the national economy.

Since economic accounts for agriculture are an integral part of the system of national accounts (System of National Accounts 2008 – SNA 2008) they provide specific data on economic activities in agriculture, which could not be visible in the system of national accounts as they are either indirectly used in the calculations or form an integral part of the categories presented on the higher level. In addition, these accounts are regarded as complementary to agricultural statistics, in a manner that agricultural variables are consistent with the concepts and definitions of national accounts. Economic accounts for agriculture are intended to ensure a conceptual framework for integrating agricultural statistics and its economic implications, which means, first and foremost, contribution of agriculture to the economy.

The methodological frame for calculating economic accounts for agriculture is ensured by ESA 2010 – European System of National and Regional Accounts, Commission Regulation (EC) No 138/2004 of the European Parliament and of the Council of 5 December 2003 on the economic accounts for agriculture in the Community, Commission Regulation (EC) No 306/2005 of 24 February 2005 amending Annex I, Commission Regulation (EC) No 909/2006 of 20 June 2006 amending Annexes I and II, as well as the Manual on Economic Accounts for Agriculture and Forestry, Rev 1.1.

The presented results of calculations of the economic accounts for agriculture in the Republic of Serbia cover the period from 2014 – 2024, and they relate to the elements of production account and factor income in agriculture. The results are offered at current and constant prices. Also provided are the methodological principles underlying the EAA compilation with a detailed description of calculation methods, data sources and main features.

The working paper was prepared at the SORS National Accounts, Prices and Agriculture Department.

Starting from 1999 the Statistical Office of the Republic of Serbia has not at disposal and may not provide available certain data relative to AP Kosovo and Metohija and therefore these data are not included in the coverage for the Republic of Serbia (total).

1. METHODOLOGICAL BACKGROUNDS OF ECONOMIC ACCOUNTS FOR AGRICULTURE

1.1. COVERAGE AND OBSERVATION UNITS

Economic accounts for agriculture are an integral part of the European system of accounts (ESA), and therefore for their compilation used is (4-digit level nomenclature of activities) the national classification of activities (Official gazette of the RS, number 104/09). General Classification of Economic activities – NACE Rev. 2 (Regulation of the European Parliament and of the Council No. 1893/2006), which came into force on 1 January 2008).

Accounts by industry describe, in more detail, the level of production process and the use of goods and services by activity. The industry consists of a group of units of homogeneous agricultural production (local KAUs) engaged in the same or similar type of activity. A series of accounts for an industry is limited to the production and generation of income account. These accounts are essentially similar to the corresponding accounts for institutional sectors (and units). However, output and intermediate consumption of the activity are broken by products in the resource and use table.

Since the purpose of economic accounts for agriculture is to measure, describe and analyse the generation of income from agricultural economic activity (which in the Member States is almost exclusively a commercial activity), the units which produce solely for own final consumption (e.g. kitchen gardens and private livestock rearing) are excluded.

Economic accounts for agriculture cover:

- family agricultural holdings having at least 0.5 hectares of agricultural land (area) on which they perform agricultural production;
- family agricultural holdings having less than 0.5 hectares of agricultural land, which they utilize for crop farming, livestock breeding, fruit growing, vineyards, vegetable production, flower growing (glass and plastic protective covers), and for other forms of practices of agricultural production, intended for marketing, as well as fish farming, mushroom growing, snail farming, bee-keeping, etc.;
- enterprises, farm cooperatives, unincorporated enterprises and other forms of organisation with the status of legal entity that are registered as mainly dealing with agricultural production, and
- enterprises, institutions and other legal entities registered for another activity, having organised branches or other organisational units in which their agricultural production is carried out.

Inseparable non-agricultural secondary activities

The use of the local KAU as the basic unit for the agricultural industry entails the recording of non-agricultural secondary activities where they cannot be distinguished from the main agricultural activity.

Inseparable non-agricultural secondary activities of local agricultural KAUs are defined as activities closely linked to agricultural production for which information on any production, intermediate consumption, compensation of employees, labour input and the gross fixed capital formation cannot be separated from the information on the main agricultural activity during the period of statistical observation.

Two main types of inseparable non-agricultural secondary activity may be distinguished:

- activities which represent a continuation of agricultural activity and which use agricultural products (processing of agricultural products: milk into butter, cream, yoghurts and other dairy products, fruit

and vegetables into fruit juices, brandy, jams etc., grapes into dried grapes and wine, processed meat products, processing of other agricultural products, etc, and

- activities involving the agricultural holding and its means of agricultural production, i.e. workforce, buildings, machinery, and equipment (agricultural services, rural tourism, etc.).

The agricultural secondary activities of non-agricultural units are negligible and are recorded as zero by convention. Agricultural production carried out by a non-agricultural unit is in fact considered to be always separable.

1.2. MAIN EAA ELEMENTS: DEFINITIONS

Output of agricultural industry is equal to the sum of the value of crop production, animal production, agricultural services and value of production from inseparable non-agricultural secondary activities on the holdings.

Crop output includes production of cereals, industrial crops, forage crops, vegetables and horticultural products, fruit and other agricultural products.

Animal output includes production or rearing (natural growth) of animals, poultry and other animals and animal products.

Production of animal products includes production of milk, eggs and other agricultural products.

Agricultural goods and services output is the value of production of all agricultural goods (crop and animal production) and agricultural services.

Inseparable non-agricultural secondary activity is the activity that cannot be separated from the main activity and is carried out on the agricultural holding (processing of milk, grapes, fruits and vegetables, and other inseparable activities: other goods and services).

1.2.1. Scope of output of agricultural industry according to EAA

<table>
<tr><td colspan="5">Output of agricultural “industry”</td></tr>
<tr><td colspan="4">Agricultural output</td><td rowspan="4">Non-agricultural secondary activities (inseparable)</td></tr>
<tr><td colspan="3">Agricultural goods output</td><td rowspan="3">Agricultural services output</td></tr>
<tr><td rowspan="2">Crop output</td><td colspan="2">Animal production</td></tr>
<tr><td>Animals</td><td>Animal products</td></tr>
</table>

The reference period is the calendar year.

In the frame of economic accounts for agriculture, agricultural production is valued at basic prices. Hence, subsidies on products and services are included, whereas taxes on products and services are excluded.

Intermediate consumption represents the value of all goods and services used as inputs in the agricultural production process. It is valued at the purchaser prices.

Gross value added at basic prices is equal to the difference between the value of agricultural production (output of the agricultural ”industry“) at basic prices and intermediate consumption at purchaser prices.

Consumption of fixed capital represents the amount of fixed capital used up in the production process during the period under consideration as a result of normal wear and tear and foreseeable obsolescence.

Net value added at basic prices is equal to the difference between gross value added at basic prices and consumption of fixed capital.

Other subsidies on production are current unrequited payments (other than subsidies on products that are included in the calculation of basic prices in the valuation of output and as such are not presented in the generation of income account) mainly intended to cover a part of production costs or as support to the changes in agricultural production methods.

Factor income is equal to the net value added less taxes on production, plus subsidies on production.

1.2.2. Generation of value added and primary income in agricultural industry

<table>
<tr><td rowspan="2">Composition of total output value</td><td colspan="6">Output of agricultural “industry”</td></tr>
<tr><td>Intra-unit consumption</td><td>Processing by producers (as separable activity)</td><td>Own final consumption</td><td>Sales
Subsidies on products less taxes on products</td><td>Own-account produced fixed capital goods</td><td>Changes in stocks</td></tr>
<tr><td rowspan="4">Other subsidies on production</td><td colspan="6">Output of agricultural “industry”</td></tr>
<tr><td colspan="5">Gross value added at basic prices</td><td rowspan="3">Total intermediate consumption</td></tr>
<tr><td colspan="4">Net value added at basic prices</td><td rowspan="2">Fixed capital consumption</td></tr>
<tr><td colspan="3">Factor income</td><td>Other taxes on production</td></tr>
</table>

1.3. METHODS OF CALCULATION

1.3.1. Output

The result of "production" process is the "output", which is recorded as a resource, while intermediate consumption is recorded as a use in the production account.

One of the main characteristics of the economic accounts for agriculture is the adoption of the "quantity x price" formula when measuring the output of the majority of agricultural products.

In economic accounts for agriculture, production is valued at basic prices.

The basic price is the price receivable by the producers from the purchaser for a unit of goods or services produced as output minus any tax payable on that unit as a consequence of its production or sale, i.e. taxes on products, plus any subsidy receivable on that unit, as a result of its production or sale, i.e. subsidies on products. The basic price excludes any transport charges invoiced separately by the producer.

Basic price	=	Amount received for a unit of goods or services	–	Taxes on products	+	Subsidies on products

1.3.2. Gross value of agricultural “industry” output, resources and uses

Resources	Uses	Agricultural output
Gross output	**Sales** (total, excluding trade in animals between agricultural holdings)	X
	Changes in stocks (with producers)	X
- Losses	**Own-account produced fixed capital goods** (productive animals, plantations yielding repeat products)	X
	Own final consumption (of agricultural products)	X
= Usable output	**Processing by producers (of agricultural products, separable activities)**	X
	Intra-unit consumption:	
	■ for the same activity (seeds, milk for livestock feed, wine grapes, olives for olive oil, hatching eggs)	
	■ for a separate activity:	
	■ crop products used in animal feed (cereals, oil seeds, fodder crops, marketable or not, etc.)	X
	■ animal by-products used in crop production (slurry, manure, etc.)	

1.3.2.1. Intermediate consumption

Intermediate consumption represents the value of all goods and services used as inputs in the production process, excluding fixed assets whose consumption is recorded as fixed capital consumption. The goods and services concerned are either transformed or used up in the production process.

Products used for intermediate consumption are presented at the time when they enter into the production process and are valued at the purchaser prices at the time of purchase.

The purchaser price is the price the purchaser actually pays for the products, at the time of purchase, which includes all taxes less subsidies on products (except deductible VAT), as well as transport charges paid separately by the purchaser to take delivery at required time and place.

Purchaser price	=	Amount paid for a unit of goods or services	+	Taxes on products	-	Deductible VAT	-	Subsidies on products	+	Transport costs

Taxes on products are compulsory, unrequited payments, in cash or in kind, which are levied by general government and are payable per unit of goods or services produced or transacted. The obligation arises from the production, sale, import, export, transfer and other forms of delivery of goods and services. They may be equivalent to a monetary amount determined per unit of goods or services or calculated “ad valorem” as a fixed percentage of the unit price or value of goods or services. In this category included are value added tax, excise tax, other taxes on products and import duties.

Subsidies on products are subsidies payable per unit of goods or services produced (l, kg, etc.) by agricultural producers.

The following table shows the elements of intermediate consumption, according to the methodology of economic accounts for agriculture.

1.4. ITEMS OF INTERMEDIATE CONSUMPTION ACCORDING TO EAA

Intermediate consumption
Seeds and planting stocks
Seeds and planting stock - intra-unit consumption
Seeds and planting stock - purchased outside the agriculture
Energy, lubricants
Fertilisers and soil improvers
Plant protection products and pesticides
Veterinary expenses
Animal feeding stuffs
Animal feeding stuffs - intra-unit consumption
Animal feeding stuffs - purchased outside the agriculture
Maintenance of materials
Maintenance of buildings
Agricultural services
Other goods and services

1.4.1. Gross value added (GVA)

The balancing item of the production account is gross value added, one of the most important balancing items in economic accounts for agriculture. Since the output is valued at basic prices and intermediate consumption at purchaser prices, the gross value added contains subsidies on products less taxes on products.

1.4.2. Net value added

Gross value added less consumption of fixed capital represents the net value added.

Net value added of the industry measures the value created by all agricultural LKAUs (local kind of activity units), after the consumption of fixed capital.

1.4.3. Subsidies

Subsidies are current unrequited payments that general governments (including non-resident government units) make to resident producers, with objective of influencing the level of agricultural production, the prices and value of goods and services produced/rendered by the producers, sale or import, production conditions, etc.

Subsidies are classified into:

- subsidies on products (export subsidies and other subsidies on products), and
- other subsidies on production.

Subsidies on products are subsidies payable per unit of goods or services produced (l, kg, etc.) by agricultural producers. The amount of subsidies on products can be specified as (i) a specific amount of money per unit of quantity of goods or services, (ii) a specified percentage of the price per unit, i.e. calculated “ad valorem“, (iii) the difference between a specified target price and the market price paid by buyer, and (iv) export support.

Subsidies can be calculated as the difference between the defined, targeted price and the market price payable by purchaser. Subsidies on products usually become payable when goods are produced, sold or exported.

By convention, subsidies on products can pertain to market output or to output for own final use (ESA 2010).

Other subsidies on production are paid to resident production units as a result of their production activities. These payments relate mainly to the assumption of production costs (e.g. input subsidies for crop production, such as fertilizers, fuel, seed and planting material, etc.) or support for changes in the method of production.

Since output is valued at basic prices, only other subsidies on production are recorded in the generation of income account (as negative uses).

1.4.3.1. Net value added at factor costs (Factor income)

Net value added at factor costs is defined as net value added at basic prices, less other taxes on production, plus other subsidies on production. This indicator measures the remuneration of all factors of production (land, capital and labour) and can be termed "factor income", as it represents the whole value generated by a unit engaged in the agricultural production activity.

1.5. FACTOR INCOME

Production account	
P-1	**Output**
P-2	- Intermediate consumption
K-1	- Consumption of fixed capital
B.1n	= Net value added
D.29	- Other taxes on production
D.39	+ Other subsidies on production
	= Net value added at factor costs (Factor income)

The differences between agricultural industry within economic accounts for agriculture and division 01 – agricultural production, hunting and related servicing activities within the system of national accounts

EAA agricultural industry differs to some extent from the industry as defined for national accounts purposes.

The differences relate to the definition of both characteristic activities and observation units. They can be summarised as follows[1]:

EAA agricultural industry	**=**	**NA agricultural branch**
	+	Wine production units (groupings of producers, co-operatives, etc.)
	+	Production units producing material for plaiting
	+	Production units producing, in nurseries, Christmas trees, fruit trees, vines and ornamental trees
	-	Units engaged in seed production (for research or certification)
	-	Production units rendering associated agricultural services other than agricultural contract work (i.e. operations of irrigation systems, designing, planting and maintaining gardens, parks and green areas for sports facilities and the like, tree pruning and hedge trimming)
	-	Non-holder kitchen gardens and private non-holder livestock rearing.

[1] EUROSTAT (2000): *Manual on the economic accounts for Agriculture and Forestry* EAA/EAF97 (Rev.1.1), Office for Official Publications of the European Communities, Luxembourg.

2. CALCULATION OF AGRICULTURAL GROSS VALUE ADDED AT CONSTANT PRICES

The calculation of agricultural gross value added at constant prices is based on the principles of the System of National Accounts 2008 – SNA 2008 and the European system of accounts 2010 – ESA 2010, as well as on the international standards and recommendations covered by the Handbook on Price and Volume Measures in National Accounts.

For each aggregate of goods and services presented in the accounts, price and quantity measures have to be structured so that:

Value index = Price index x Volume index

This means that each and every change in the value of aggregate must be attributed to either a price change or a change in volume, or a combination of the two.

The systematic breakdown of the changes in current value into the components “change in price” and “changes in volume” is restricted to the flows representing transactions of goods and services and to the elements concerned in the valuation of these transactions (production, intermediate consumption, consumption of fixed capital, gross value added, net value added, GFCF, changes in stocks, taxes and subsidies on products).

In accordance with the recommendations of ESA 2010, in EAA, changes in volume are measured using Laspeyres-type indices and changes in price are measured using Paasche-type indices.

Laspeyres volume index:

$$L_{(q)} = \frac{\sum p_0 q_n}{\sum p_0 q_0} = \frac{\sum p_o q_o \frac{q_n}{q_o}}{\sum p_0 q_0} = \frac{\sum V_0 \frac{q_n}{q_0}}{\sum V_0}$$

Paasche price index:

$$P_{(p)} = \frac{\sum q_n p_n}{\sum q_n p_n} = \frac{\sum p_0 q_n \frac{p_n}{p_0}}{\sum p_o q_n}$$

For each elementary product,

- p_0 : represents the price recorded in the base year 0,
- p_n : represents the price recorded in year n,
- q_0 : represents the quantity recorded in the base year 0,
- q_n : represents the quantity recorded in year n,
- Vo : represents the value recorded in the base year 0 ($V_o = p_0 q_o$).

Changes in volume are measured using Laspeyres-type indices: changes in the quantities of elementary series are therefore weighted by the value in the base year. Changes in price are measured using Paasche-type indices: changes in the prices of elementary series are therefore weighted by the value in the current year at the base year prices.

The term ”base year“ refers to the year from which the prices are used to compile the weighting scheme (calculations at constant prices).

The calculation of GVA for agriculture at the previous year prices means that every previous year is treated as the base year and the weights are changed successively by years. This approach guarantees that weights are relatively up-to-date and helps avoiding problems, and therefore are linked to weighting products that are no longer produced and new products that have emerged. It is for this reason that the EAA measures changes in volume with using the weightings for the preceding year.

Value added constitutes the balancing item of the production account. As such, it is not possible to split value added directly into a price component and a volume component.

The theoretically correct method for calculating value added at constant prices is to carry out "double deflation". Therefore, Gross value added in the prices of the preceding year is defined as the difference between the output measured at the prices of the preceding year and intermediate consumption measured at the prices of the preceding year.

According to this calculation method, only two consecutive years expressed at the same prices are comparable. The obtained data series calculated at the previous year prices cannot be used to calculate the rate of real growth, which is due the fact that the data are not comparable (each year is valued at previous year prices). In order to obtain comparable data series for calculating the growth rate it is necessary to make it a continuous procedure, which is achieved by chain-liking of the data to a selected reference year. The reference year is the year that is used for the presentation of the data series at constant prices. In a series of index numbers it is the year that has the value of 100. One of the main features of chain-linking is that by changing the reference year, the absolute values are changing, but growth rates remain the same. According to Eurostat recommendations, the reference year is 2015.

Breakdown of taxes and subsidies on products into volume and price component

The volume index of subsidies (or taxes) on product is identical to the volume index of the output at the producer prices. In this case, the volume index of the output is the same whether expressed at producer prices or at basic prices.

3. CALCULATION OF ECONOMIC ACCOUNTS FOR AGRICULTURE IN THE REPUBLIC OF SERBIA

3.1. MAIN FEATURES OF THE CALCULATION

Calculation of the economic accounts for agriculture in the Republic of Serbia was carried out for the period 2014 – 2024 and is in accordance with the concepts and rules stipulated by the Regulation (EC) No 138/2004 of the European Parliament and of the Council of 5 December 2003 on the economic accounts for agriculture in the Community with annexes. The general methodological framework comprises the System of National Accounts 2008 – SNA 2008 and the European System of Accounts 2010 – ESA 2010.

In the current statistical system of the Republic of Serbia no special surveys are implemented to provide direct data in value terms for the calculation of items and elements of the economic accounts for agriculture; however, the indirect data from the regular SORS statistical surveys envisaged to measure different areas of the economy (agricultural production, industry, prices, and price indices etc.) are used for this purpose. Also, administrative data are used; in the first place, data on subsidies in agriculture (data from the Ministry of agriculture, forestry and water management, the Directorate for agrarian payments and the Ministry of finance).

The calculation of the economic accounts for agriculture covers the overall agricultural production. Hence, family holdings, as well as legal entities and unincorporated enterprises in the Republic of Serbia are covered.

The main features of the calculation can be summarised as follows:

- It is carried out in accordance with the General Industrial Classification of Economic Activities within the European Communities, Revision 2, or NACE, Rev. 2, for agricultural industry,
- At current and constant prices,
- “Double deflation”, i.e. direct, so-called double indicator method is used for the calculation at constant prices (previous year prices), and
- Reference year is 2015.

3.2. DATA SOURCES

Given the multi-source character of the EAA and the fact that it represents a kind of statistics of synthesis, a wide range of data collection techniques can be used.

Therefore, in the Republic of Serbia, apart from analytical procedures imposed on primary statistics, alternative indirect methods are needed to be applied for some EAA items such as intra-unit consumption, intermediate consumption, consumption of fixed capital, and other, for which no direct statistical data are available. The indirect methods rely upon the assumptions and developed models with input coefficients based on respective expertise and technical standards.

In this process a large number of agricultural statistics are available, both compiled by SORS and obtained from external sources. They can be split into two main groups:

- Regular statistical surveys, and
- Administrative and other data sources.

The following table shows the available data sources, their EAA relevance with corresponding input variables for the calculations, including the institutions in charge of data provision.

3.2.1. EAA elements and the major data sources

Data source	EAA item	Input variable for the EAA calculation	Institution in charge
Agricultural statistics			
Crop production statistics	Output	Sown areas, harvested areas, average yield, total production	SORS
Survey on agriculture production – livestock production	Output, Intermediate consumption, Gross fixed capital formation in livestock	Number of livestock by species and categories, incl. the number of beehives, livestock turnover by species, average weight per head, production of milk (from cows, sheep and goats), eggs, honey and wool, feedstuffs consumption	SORS
Survey on agriculture production – crop production	Output, Intermediate consumption	Harvested areas, average yield, total production, intra-unit consumption, production costs by elements	SORS
Annual survey on legal entities dealing with agricultural production	Output, Intermediate consumption	Balance of wheat and maize for legal entities, production costs by elements	SORS
Slaughtering statistics	Output, Gross fixed capital formation in livestock	Number of heads slaughtered and the average weight at slaughter (only for legal entities)	SORS
Monthly reports on purchase and sale of agricultural products	Output, Intermediate consumption	Monthly data on purchase and sale of agricultural products (quantities and values)	SORS
Agricultural price statistics	Output, Intermediate consumption, constant prices	Output absolute prices and indices, Input absolute prices and indices	SORS
Results of research projects, bio-technical coefficients, experts' estimates	Output, Intermediate consumption, Gross fixed capital formation in livestock, *"missing prices"*	Bio-technical coefficients such as seed consumption per ha, live/carcass weight coefficient, calving percentage, etc.	Faculty of Agriculture, IAS, CCIS
Other statistics and data sources			
External trade statistics	Output, Intermediate consumption	Export and import (quantities and values)	SORS
Industry statistics	Output, Intermediate consumption	Industry production (quantities and values)	SORS
Producer price indices (PPI)	Intermediate consumption at constant prices	Producer price indices on product level	SORS
Consumer price index (CPI)	Intermediate consumption at constant prices	Consumer price indices on product level	SORS
Data on compensatory payments in agriculture	Basic prices, Factor Income	Subsidies on production, other subsidies on production, capital transfers	MoA, DAP and MF

3.3. METHODS OF CALCULATION

Calculation of crop output relies upon the data of agricultural production statistics, such as the data on produced (harvested) quantities of crops. These data are obtained on the basis of the estimated area and the average yields for each crop provided by agricultural production statistics. When it comes to calculating animal production, use is made of data on the number, weights, balance and slaughtering of animals and poultry, as well as data on the production of animal products (milk, eggs, wool, etc.).

For the valuation of agricultural production (output), use is made of average producer prices of agricultural products.

Producer prices of agricultural products are calculated on monthly and annual basis, based on sales data on agricultural products from own production of legal entities engaged in agricultural production (sales prices) and data on purchases of agricultural products from family holdings, performed by the authorized units (purchaser prices).

Calculation of the output of inseparable non-agricultural secondary activities includes the following activities:

- Processing of cereals into flours, shredded wheat, etc.
- Processing of fruits and vegetables into juices, brandy, marmalade, etc.
- Processing of grapes into dried grapes, wine, etc.
- Processing of milk into cheese, butter, yoghurt and other dairy products
- Processing of meat, and
- Agricultural services.

Intermediate consumption refers to all goods and services used as inputs in the production process, such as seeds and planting material, energy and lubricants, fertilizers and other means for improving soil quality, plant protection products, veterinary expenses, animal feed, maintenance of materials and equipment, maintenance of buildings, agricultural services and other goods and services (costs of renting buildings, equipment and machines without personnel to carry out agricultural production, agricultural extension services fees, subscriptions, fees for membership in professional associations, chambers of commerce, purchases of small tools, working clothing, spare parts and durable equipment of low value, i.e. less than EUR 500 at 1995 prices or with a normal service life of less than one year, etc.).

Goods used for intermediate consumption are valued at purchaser prices at the time they enter into the production process.

As the balancing item of output and intermediate consumption, the gross value added of agriculture is obtained. Subtracting the amount of the fixed capital depreciation results in the net value added of agriculture. At this point, the estimates of depreciation in agriculture in the Republic of Serbia are based on the expert correction coefficients that are applied to the output of agriculture.

The calculation of the subsidies in agriculture was conducted so as to allow their classification as prescribed by the methodology on economic accounts for agriculture. Since the method of monitoring and recording of projected and paid subsidies in agriculture by the Agency for Payments in Agriculture and the Ministry of agriculture, forestry and water management is based on a completely different classification, it is necessary to examine in detail the contents of each of the support measures in agriculture and then execute its reclassification according to the requirements of the EAA (division into subsidies on products and other subsidies on production). For this purpose, the OECD methodology for the assessment of support to agriculture was used[2].

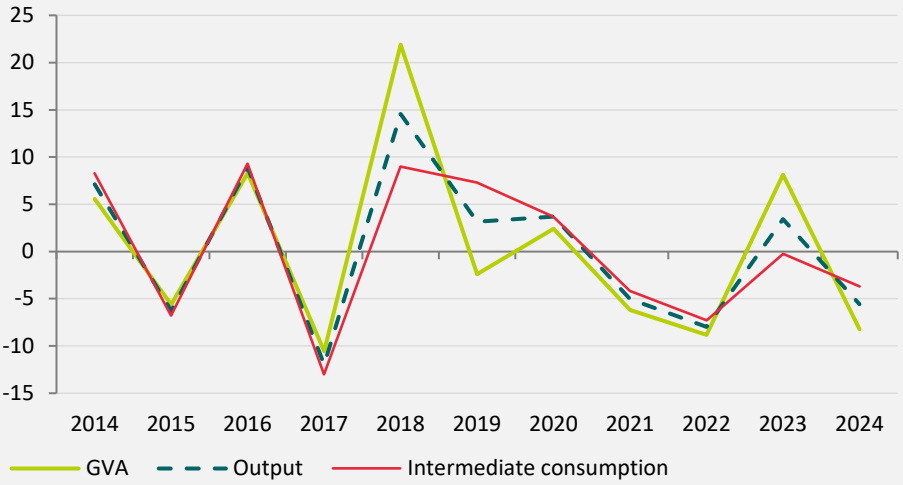
[2] OECD (2008): OECD's Producer Support Estimate and Related Indicators of Agricultural Support: Concepts, Calculations, Interpretation and Use (The PSE Manual), OECD Trade and Agriculture Directorate, Paris.

4. EAA CALCULATION RESULTS FOR THE REPUBLIC OF SERBIA: QUANTITATIVE OVERVIEW

The presented results of the calculation of economic accounts for agriculture in the Republic of Serbia refer to the period from 2014 – 2024.

In the period observed achieved was the cumulative fall of agricultural GVA equalling 5.45%, while the average annual growth rate equalled -1.87%. In 2014 agricultural GVA recorded growth of 5.5%. In 2017 recorded was fall of -10.5%. In 2020 recorded was agricultural GVA growth of 2.4%. In 2021 noted was fall of agricultural GVA of -6.2%, while in 2023 growth of agricultural GVA equalled 8.11%. In 2024 agricultural GVA recorded fall of 8.21%.

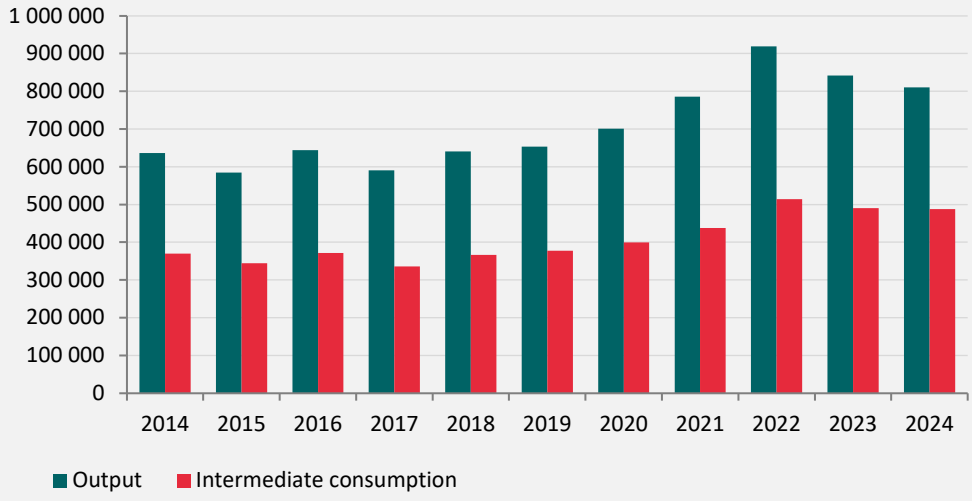
Graph 1. Growth rate of GVA in agriculture, 2014 – 2024, %



Output and intermediate consumption of agriculture

In the period from 2014 – 2024, intermediate consumption created 58.17% of the agricultural industry output on average, with the top share of 61.4% expressive in 2024.

Graph 2. Output and intermediate consumption at current prices, 2014 – 2024, RSD million



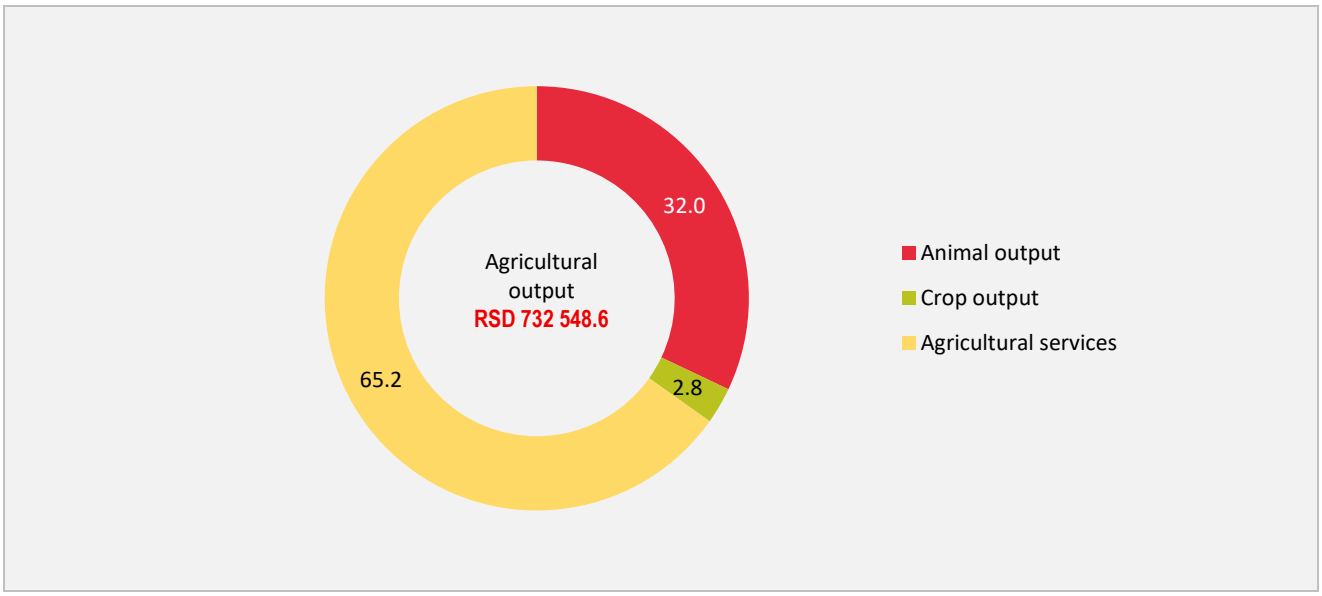
Agricultural output structure

In the period from 2014 – 2024, the average share of agricultural goods production in the total production of agricultural goods and services equalled 97.5%, while the share of agricultural services equalled 2.5%.

In the same period, the average share of animal output in the production of agricultural goods and services accounted for 29.0%, while the share of crop output equalled 68.5%.

In 2024 the share of crop output in the total production of agricultural goods and services decreased and equalled 65.2%, while the share of animal output in the total production of agricultural goods and services equalled 32.0%.

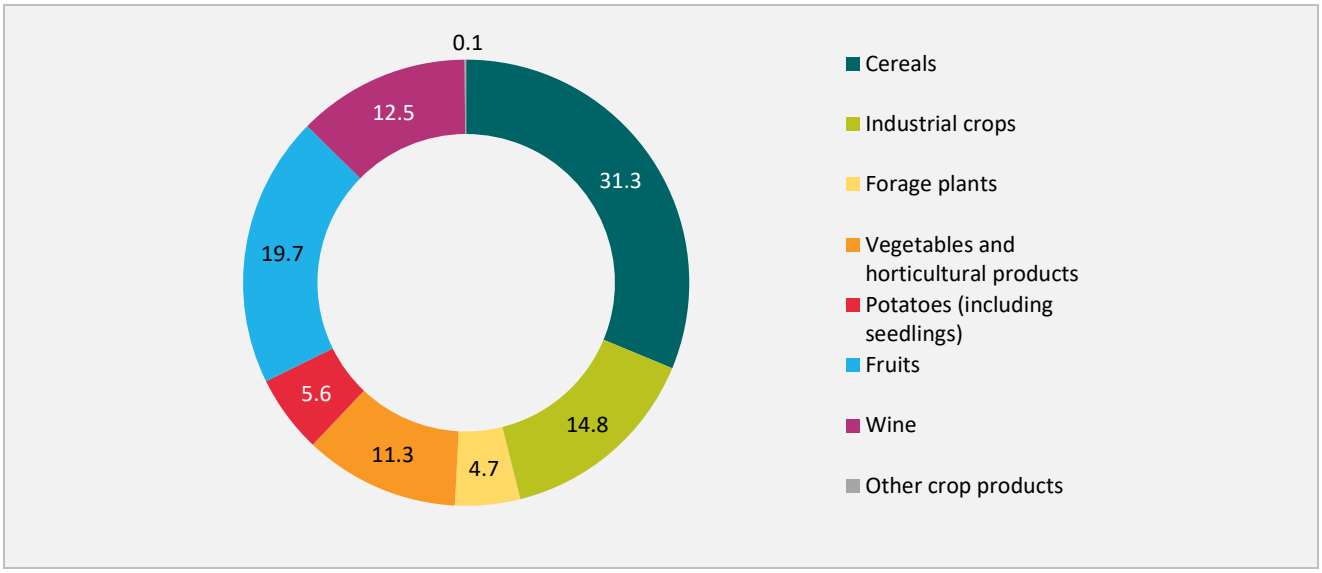
Graph 3. Structure of the agricultural output in 2024



Crop output

In 2024 the average share of cereals was dominant in the structure of crop production with 31.1%. Industrial crops production contributed with 14.8%, and wine production with 12.5%, and fruit production with (19.7%). The production of vegetables and horticultural products equalled 11.3%, and then potato crops production with 5.6%. The lowest share was noted for the production of forage crops (4.7%), i.e. other crop products (0.1%).

Graph 4. Structure of crop output in 2024



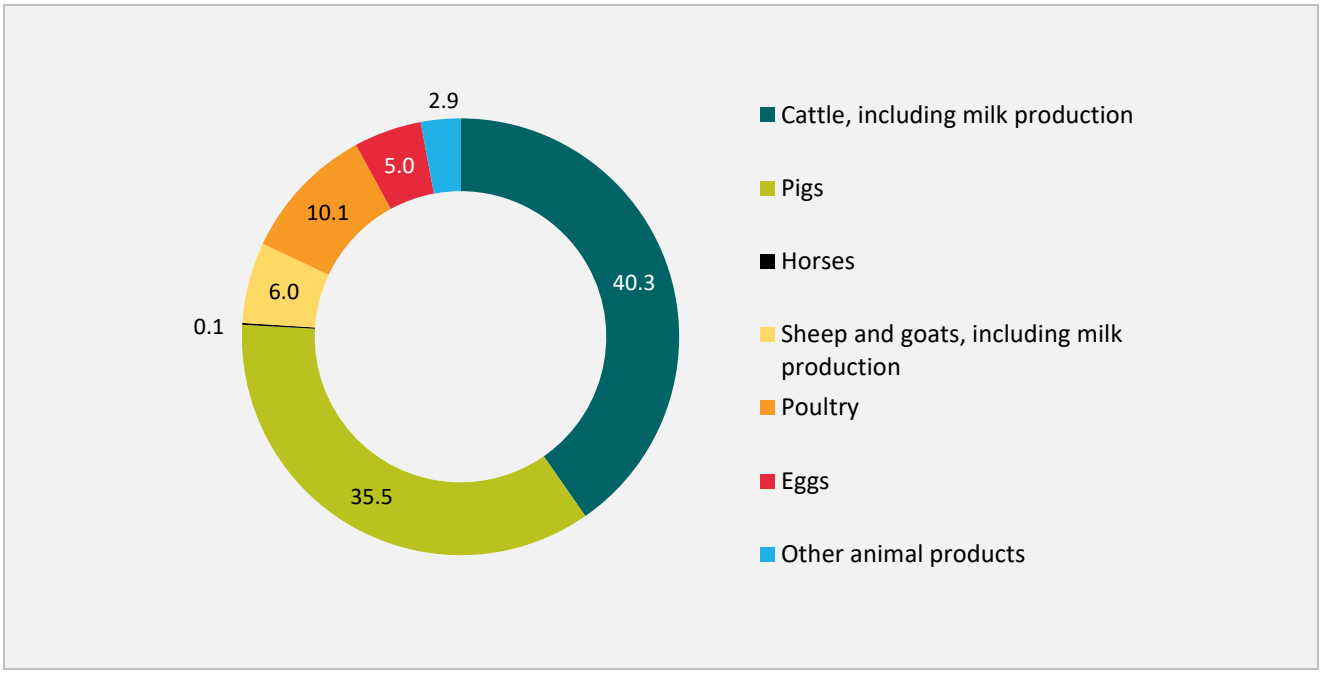
Animal output

In the period from 2014 – 2024, the animal husbandry participated in the structure of animal output with 68.4% on average, while animal products participated with 31.6%.

In the referent period the highest average share in animal husbandry had the breeding of pigs (52.1%), followed by the breeding of cattle (26.4%). The breeding of poultry accounted for 12.5%, and the breeding of sheep and goats participated with 8.8%. The share of horse breeding equalled 0.2%.

Milk was the major product of animal production. The average share of milk production in the total value of animal production (animal output) equalled 69.6%.

Graph 5. Structure of animal output in 2024



Volume of agricultural production

The volume of agricultural production represents the value of production at the previous year prices. It is expressed in producer prices with a view to avoiding the impact of subsidies.

In the observed period, the volume of agricultural production varied considerably, mainly due to unfavourable climatic effects.

In 2014 the volume of production of agricultural goods increased by 9.0%, while in 2015 recorded was a fall of -6.9%. In 2020 recorded was a volume growth of 2.1%, while in 2022 recorded was a fall of -8.9%, and. In 2023 volume growth of agricultural goods production was seen to equal 6.5%, and in 2024 the volume of agricultural goods production fell by -6.59%.

These developments are the result of high fluctuations in the volume of crop production. In 2014 recorded was the highest growth of crop production volume (12.7%), but in 2015 a fall equalling -14.6% was seen. In 2020 noted was output growth of 4.0%, and then in 2022% a fall of -11.4% was noted. In 2023 volume growth of crop production equalled 11.1%, and in 2024 fall of -11.58% was recorded.

In 2014 the volume of livestock production made a moderate growth of 1.0%. In 2015 recorded was the top growth – 10.1%; however, in 2020 the fall equalled -2.2%. In 2022 recorded was fall in the volume of livestock production by 0.5%, while in 2023 the fall of livestock production volume equalled -5.1%. In 2024 growth of livestock production of 3.88% was seen.

Consumption structure of agricultural output

The main part of agricultural production is intended for the market; the data are estimated on the basis of direct and indirect statistical sources. In compliance with the EAA methodology, the sales from agricultural holdings include sales to other agricultural holdings, sales to non-agricultural units outside agriculture and exports.

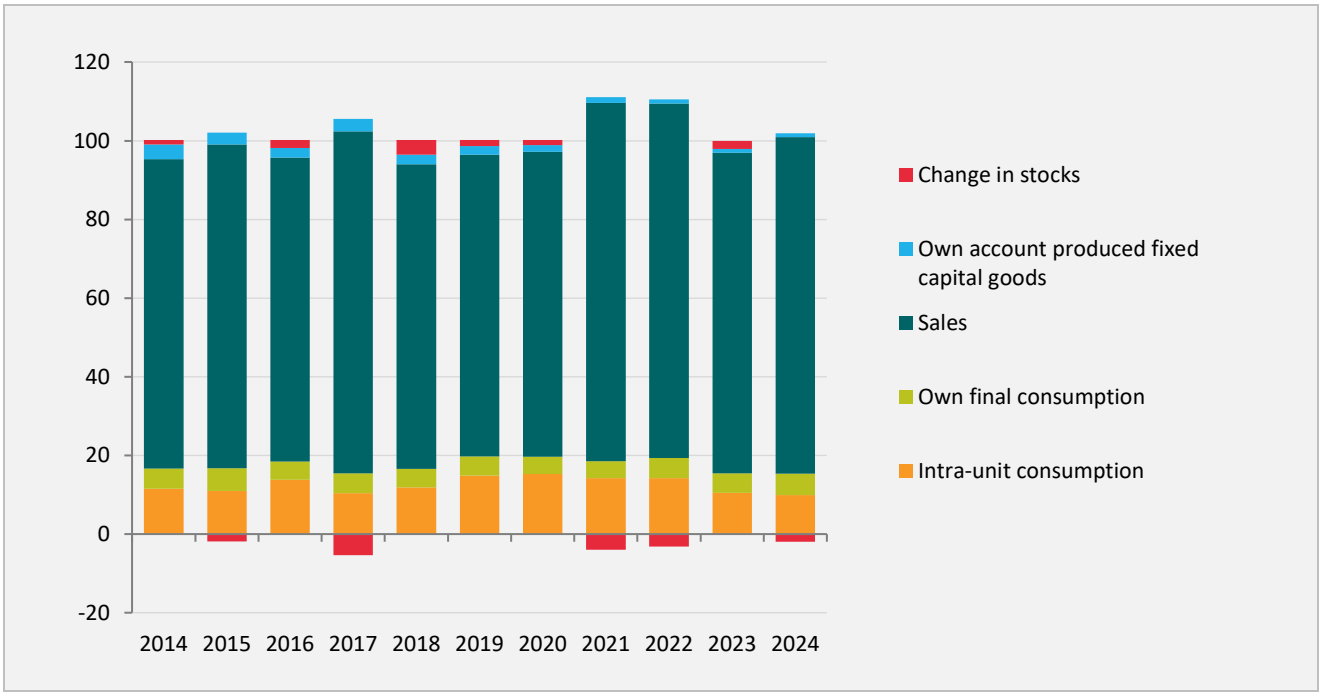
In the period 2014 – 2024, the total sales from holdings on average equalled 82.3% of agricultural production. In 2019, the share of total sales from holdings in agricultural production equalled 76.7%, in 2020 it equalled 77.5%, while in 2024 the total sales were on the level of 85.6%.

Intra-unit consumption moved between 11.6% and 9.9%% in the period observed. Consumption within coverage units includes the products that are produced and consumed in various parts of agricultural activity at the four-digit level of NACE Rev. 2, like crop products used as animal feeding stuffs. It is worthwhile noting that the products produced and consumed on agricultural holdings within the corresponding activity (at the four-digit NACE Rev. 2 level) are not included as part of agricultural production within EAA. Characteristic examples are seeds used in the same production (sowing), grapes for producing wine, olives for producing olive oil, milk used as calves' fodder, etc. In 2019 the share of intra-unit consumption equalled 14.9%, and in 2020 it equalled 15.3%%, while in 2024 the share of intra-unit consumption equalled 9.9%.

On average agricultural holdings used 4.9% of agricultural output value for own final consumption in the period 2014 – 2024. The share of own consumption of holdings in agricultural production in 2022 equalled 5.1%, and in 2024 it achieved the level of 5.4%.

Gross fixed capital formation for own account equalled on average 2.1% of agricultural output value. In 2024, this share was increased in comparison with the previous year.

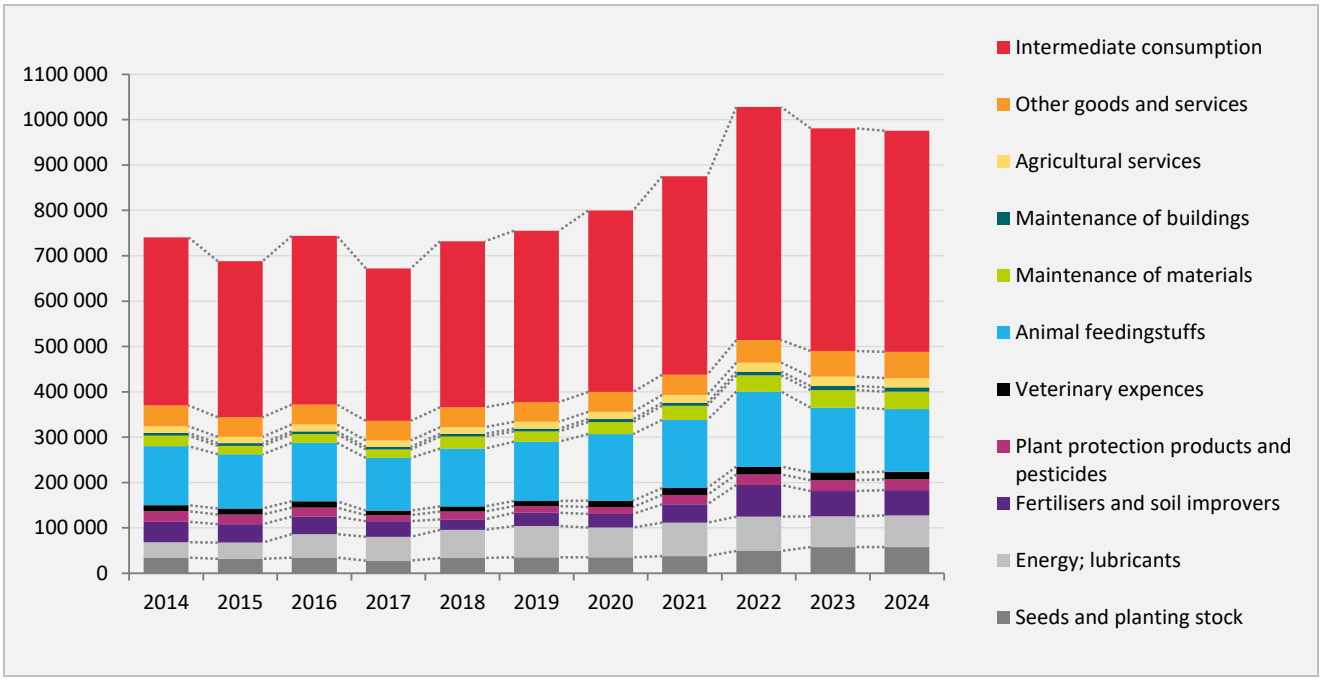
Graph 6. Consumption structure of agricultural output at producer prices, 2014 – 2024



Intermediate consumption

The value of intermediate consumption in 2024 amounted to RSD 487 962.2 million, meaning a fall of -0.5% when compared to the previous year. The real level of intermediate consumption recorded fall of -3.7%, while input prices increased by 3.3% when related to the previous year.

Graph 7. Structure of intermediate consumption, 2014 – 2024, RSD mill.



In the period from 2014 – 2024, the largest average share in the total production costs of agricultural holdings had animal feeding stuffs (33.5%), followed by the costs of energy and lubricants (14.5%) and other goods and services (11.8%). Seeds and planting stocks had the average share of 9.6%, while fertilisers and other means for improving the quality of soil had the average share of 10.2%. The lowest share had the costs of maintenance of buildings (1.7%).

Table 1. Economic accounts for agriculture

Description	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
						Current prices, RSD million					
Production at basic prices	635 984.9	584 834.1	643 685.6	590 706.9	640 861.9	653 183.7	700 488.3	785 422.9	918 689.1	842 082.6	810 400.9
Intermediate consumption	370 166.1	344 055.9	371 854.1	336 109.2	366 069.2	377 541.4	399 918.8	437 683.7	514 034.2	490 408.1	487 962.2
Gross value added	**265 818.8**	**240 778.2**	**271 831.5**	**254 597.7**	**274 792.7**	**275 642.3**	**300 569.5**	**347 739.2**	**404 654.9**	**351 674.5**	**322 438.7**
Factor income	247 263.3	217 384.3	243 415.7	228 284.2	246 110.5	246 157.6	267 436.8	299 920.0	357 482.4	333 868.4	310 140.6
Share of GVA of agriculture in GDP, % (updated data)[1]	6.1	5.4	5.8	5.1	5.2	5.4	5.2	5.3	5.4	4.0	3.3
						Constant prices (previous year prices), RSD million					
Production in basic prices	665 429.2	595 988.4	636 794.4	566 602.9	676 759.5	660 982.1	669 116.8	665 178.2	722 807.3	950 307.8	795 104.7
Intermediate consumption	385 035.9	345 109.9	376 068.9	323 429.4	366 352.8	392 755.7	386 817.1	383 252.1	405 795.4	512 816.2	472 313.7
Gross value added	**280 393.2**	**250 878.4**	**260 725.5**	**243 173.5**	**310 406.8**	**268 226.5**	**282 299.8**	**281 926.1**	**317 011.8**	**437 491.6**	**322 791.0**
						Chain-linked volume measures, 2015=100, RSD million					
Production in basic prices	549 028.5	514 500.6	560 212.0	493 125.4	564 962.6	582 700.0	596 913.8	566 825.0	521 636.5	539 589.8	509 487.3
Intermediate consumption	318 523.7	296 963.2	324 594.4	282 324.1	307 728.0	330 161.4	338 272.9	324 175.1	300 556.8	299 844.6	288 781.4
Gross value added	**223 751.9**	**211 175.8**	**228 670.7**	**204 563.0**	**249 404.2**	**243 444.6**	**249 324.5**	**233 859.4**	**213 194.8**	**230 495.0**	**211 564.2**
Real growth rates of GVA	**5.5**	**- 5.6**	**8.3**	**- 10.5**	**21.9**	**- 2.4**	**2.4**	**- 6.2**	**- 8.8**	**8.1**	**- 8.2**

[1] Revised data.

Graph 8. Share of GVA of agriculture (EAA) in GDP, 2014 – 2024

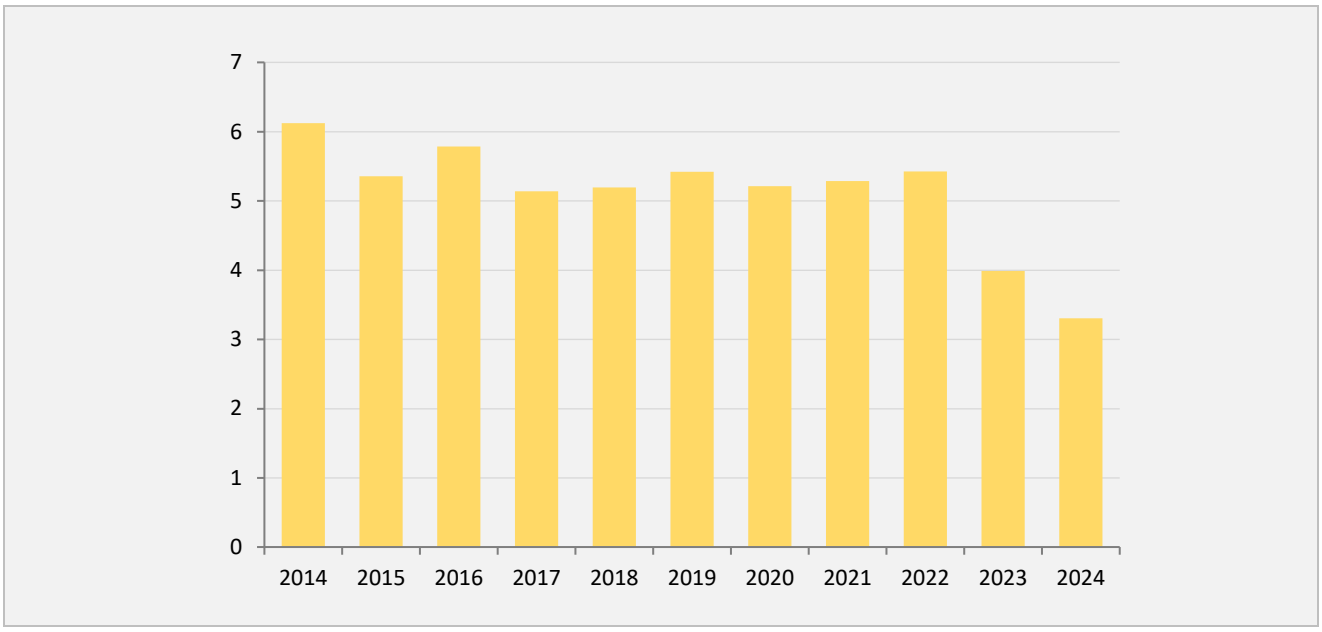


Table 2. Agricultural output at current prices, Republic of Serbia

Description	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	RSD million										
Agricultural output	**584 299.7**	**534 779.5**	**589 817.8**	**543 746.5**	**589 704.3**	**605 291.2**	**648 358.5**	**724 332.4**	**841 685.3**	**773 010.6**	**732 548.6**
Agricultural goods output	**569 276.2**	**520 965.6**	**574 817.9**	**529 890.4**	**574 703.9**	**589 978.3**	**632 360.9**	**707 213.2**	**821 507.6**	**752 671.7**	**712 127.8**
Crop production	390 747.7	351 927.4	419 400.1	357 056.3	398 513.5	414 528.6	454 422.6	544 202.2	590 920.8	521 272.1	477 347.2
Cereals	178 776.0	139 584.0	164 831.9	113 759.6	157 004.2	158 628.8	170 698.6	216 992.9	225 652.3	187 950.2	149 220.6
Industrial crops	54 392.7	48 500.6	58 939.9	58 443.1	62 530.5	63 157.4	69 350.1	89 037.3	87 790.2	82 315.2	70 840.3
Forage plants	23 688.2	17 553.2	27 062.5	20 984.6	28 649.1	33 556.5	36 295.0	26 293.4	25 585.2	32 275.6	22 497.5
Vegetables and horticultural products	28 813.2	35 588.2	40 579.0	32 537.9	26 097.1	31 554.1	28 125.3	35 756.3	36 630.5	39 592.5	53 714.1
Potato	13 024.7	13 641.5	13 892.3	11 686.6	13 218.4	11 805.3	13 001.2	14 031.3	24 328.8	26 637.3	26 969.8
Fruits	56 879.7	73 669.8	74 991.0	76 995.0	68 815.9	67 045.1	89 740.6	110 217.5	128 199.0	74 892.5	93 874.4
Wine	34 621.3	22 794.7	38 568.5	42 111.7	41 578.5	48 249.0	46 667.2	51 352.1	62 167.0	77 117.1	59 704.7
Olive oil	...	...	...	...	...	...	...	...	...	...	...
Other crop products	552.0	595.3	534.9	537.7	619.8	532.5	544.6	521.2	567.8	491.7	525.8
Animal production	178 528.4	169 038.2	155 417.8	172 834.0	176 190.4	175 449.7	177 938.3	163 011.0	230 586.8	231 399.6	234 780.7
Animals	123 133.0	111 012.3	104 280.9	120 477.8	114 530.3	121 969.3	123 909.1	111 828.5	159 111.2	164 863.4	159 999.6
Cattle	32 114.4	31 703.4	30 352.6	31 039.7	33 686.7	32 412.0	29 158.1	31 209.4	39 361.2	39 919.7	38 529.7
Pigs	65 764.6	57 097.8	54 272.3	66 198.5	57 503.1	63 582.6	65 256.8	55 812.1	79 526.9	89 133.7	83 461.9
Equines	151.3	77.3	366.8	383.2	35.9	320.4	120.2	493.6	146.1	617.2	317.8
Sheep and goats	10 107.9	8 971.1	5 998.2	8 415.6	8 298.6	10 611.7	13 856.6	16 349.3	16 423.7	11 385.3	14 063.5
Poultry	14 994.7	13 162.7	13 291.1	14 440.7	15 006.0	15 042.5	15 517.4	7 964.1	23 653.3	23 807.5	23 626.7
Other animals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Animal products	55 395.5	58 026.0	51 136.8	52 356.3	61 660.1	53 480.5	54 029.2	51 182.6	71 475.6	66 536.3	74 781.0
Milk	38 459.0	37 309.9	35 047.9	35 387.5	44 261.1	37 192.3	37 350.0	34 419.6	51 310.9	47 266.9	56 151.0
Eggs	14 970.9	15 507.4	13 740.5	14 504.0	13 357.3	13 558.5	13 619.5	13 967.7	13 065.2	11 485.8	11 768.7
Other animal products	1 965.6	5 208.7	2 348.5	2 464.8	4 041.7	2 729.6	3 059.7	2 795.2	7 099.5	7 783.6	6 861.3
Agricultural services	**15 023.5**	**13 813.9**	**14 999.9**	**13 856.1**	**15 000.5**	**15 313.0**	**15 997.6**	**17 119.2**	**20 177.7**	**20 338.9**	**20 420.8**

Table 2. Agricultural output at current prices, Republic of Serbia (continued)

Description	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Structure (%)										
Agricultural output	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Agricultural goods output	**97.4**	**97.4**	**97.5**	**97.5**	**97.5**	**97.5**	**97.5**	**97.6**	**97.6**	**97.4**	**97.2**
Crop production	66.9	65.8	71.1	65.7	67.6	68.5	70.1	75.1	70.2	67.4	65.2
Cereals	30.6	26.1	27.9	20.9	26.6	26.2	26.3	30.0	26.8	24.3	20.4
Industrial crops	9.3	9.1	10.0	10.7	10.6	10.4	10.7	12.3	10.4	10.6	9.7
Forage plants	4.1	3.3	4.6	3.9	4.9	5.5	5.6	3.6	3.0	4.2	3.1
Vegetables and horticultural products	4.9	6.7	6.9	6.0	4.4	5.2	4.3	4.9	4.4	5.1	7.3
Potato	2.2	2.6	2.4	2.1	2.2	2.0	2.0	1.9	2.9	3.4	3.7
Fruits	9.7	13.8	12.7	14.2	11.7	11.1	13.8	15.2	15.2	9.7	12.8
Wine	5.9	4.3	6.5	7.7	7.1	8.0	7.2	7.1	7.4	10.0	8.2
Olive oil	...	...	...	...	...	...	...	...	...	...	...
Other crop products	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Animal production	30.6	31.6	26.4	31.8	29.9	29.0	27.4	22.5	27.4	29.9	32.0
Animals	21.1	20.8	17.7	22.2	19.4	20.2	19.1	15.4	18.9	21.3	21.8
Cattle	5.5	5.9	5.1	5.7	5.7	5.4	4.5	4.3	4.7	5.2	5.3
Pigs	11.3	10.7	9.2	12.2	9.8	10.5	10.1	7.7	9.4	11.5	11.4
Equines	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0
Sheep and goats	1.7	1.7	1.0	1.5	1.4	1.8	2.1	2.3	2.0	1.5	1.9
Poultry	2.6	2.5	2.3	2.7	2.5	2.5	2.4	1.1	2.8	3.1	3.2
Other animals	...	...	...	...	...	...	0.0	0.0	0.0	0.0	0.0
Animal products	9.5	10.9	8.7	9.6	10.5	8.8	8.3	7.1	8.5	8.6	10.2
Milk	6.6	7.0	5.9	6.5	7.5	6.1	5.8	4.8	6.1	6.1	7.7
Eggs	2.6	2.9	2.3	2.7	2.3	2.2	2.1	1.9	1.6	1.5	1.6
Other animal products	0.3	1.0	0.4	0.5	0.7	0.5	0.5	0.4	0.8	1.0	0.9
Agricultural services	**2.6**	**2.6**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.36**	**2.40**	**2.63**	**2.79**

Table 3. Agricultural output at previous year prices, Republic of Serbia

Description	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	RSD million										
Agricultural output	**616 463.0**	**544 084.6**	**581 180.5**	**520 179.5**	**624 318.9**	**612 085.9**	**618 430.7**	**604 588.9**	**660 036.2**	**895 906.2**	**722 105.1**
Agricultural goods output	**601 809.4**	**530 095.1**	**566 168.0**	**506 950.6**	**608 409.6**	**596 516.1**	**602 533.9**	**589 247.9**	**644 321.0**	**875 251.2**	**701 268.7**
Crop production	426 840.6	333 546.9	404 404.2	346 401.6	437 607.6	408 464.8	430 995.6	422 832.6	482 107.3	656 426.5	460 891.8
Cereals	205 237.2	136 820.7	174 833.8	104 734.0	174 429.9	163 825.3	168 992.9	156 836.9	166 433.6	289 462.3	150 366.0
Industrial crops	60 248.7	44 755.3	62 032.9	52 541.8	74 856.3	63 339.7	58 330.8	63 804.9	80 069.3	114 039.4	65 201.6
Forage plants	19 897.7	21 143.1	20 669.8	20 848.0	27 824.6	34 311.7	36 160.5	23 702.1	21 342.8	29 943.1	30 697.9
Vegetables and horticultural products	23 301.7	33 015.4	37 127.1	38 627.8	26 081.6	24 208.2	29 542.3	32 444.3	35 469.0	29 630.0	49 312.8
Potato	18 627.3	12 850.9	14 560.4	12 933.0	9 820.3	10 150.5	18 333.7	11 878.4	12 777.5	26 156.1	26 910.8
Fruits	61 362.6	57 036.7	70 406.8	76 021.1	83 615.8	69 793.8	74 651.5	83 296.7	113 887.2	111 374.7	72 055.5
Wine	37 560.2	27 360.9	24 260.9	40 219.9	40 145.5	42 339.2	44 477.1	50 390.0	51 581.3	55 398.1	65 903.6
Olive oil	...	...	...	...	...	...	...	...	...	...	...
Other crop products	605.2	563.9	512.6	475.9	833.6	496.6	506.8	479.2	546.5	422.8	443.6
Animal production	174 968.8	196 548.2	161 763.8	160 549.1	170 801.9	188 051.3	171 538.3	166 415.3	162 213.7	218 824.7	240 376.9
Animals	119 950.4	137 106.1	109 033.8	109 297.1	116 572.6	127 137.5	118 945.9	116 210.5	107 666.8	151 768.2	171 072.6
Cattle	29 718.4	36 165.9	27 529.9	34 955.1	29 122.9	41 604.9	27 487.4	25 793.4	28 905.5	36 502.9	35 017.9
Pigs	64 574.6	74 878.2	60 365.6	53 146.8	63 362.3	60 570.2	65 140.7	60 957.1	54 198.1	73 627.2	96 325.1
Equines	160.5	68.7	310.7	407.7	37.3	318.8	118.9	284.1	191.3	623.7	288.5
Sheep and goats	8 997.3	11 841.7	7 426.1	6 320.6	7 945.1	8 276.8	10 728.0	12 684.7	16 595.9	15 440.1	13 461.0
Poultry	16 499.6	14 151.5	13 401.4	14 466.9	16 105.1	16 366.8	15 470.8	16 491.3	7 776.1	25 574.3	25 980.1
Other animals	...	...	...	...	...	...	...	...	...	...	...
Animal products	55 018.4	59 442.2	52 730.0	51 252.0	54 229.4	60 913.8	52 592.4	50 204.8	54 546.9	67 056.5	69 304.3
Milk	38 840.1	38 383.8	36 156.7	35 556.8	35 610.2	44 597.2	37 015.4	33 905.7	34 593.9	47 271.6	48 452.5
Eggs	14 435.7	16 412.3	13 911.8	13 045.8	14 822.7	13 558.5	13 047.5	14 055.2	13 065.2	11 989.3	11 768.7
Other animal products	1 742.5	4 646.1	2 661.5	2 649.4	3 796.4	2 758.0	2 529.4	2 243.9	6 887.8	7 795.6	9 083.1
Agricultural services	**14 653.5**	**13 989.5**	**15 012.5**	**13 228.9**	**15 909.3**	**15 569.8**	**15 896.8**	**15 341.0**	**15 715.2**	**20 655.0**	**20 836.4**

Table 3. Agricultural output at previous year prices, Republic of Serbia (continued)

Description	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Volume changes											
Agricultural output	**9.0**	**- 6.9**	**8.7**	**- 11.8**	**14.8**	**3.8**	**2.17**	**-6.75**	**-8.88**	**6.44**	**-6.59**
Agricultural goods output	**9.0**	**- 6.9**	**8.7**	**- 11.8**	**14.8**	**3.8**	**2.13**	**-6.82**	**-8.89**	**6.54**	**-6.83**
Crop production	12.7	- 14.6	14.9	- 17.4	22.6	2.5	3.97	-6.95	-11.41	11.09	-11.58
Cereals	17.5	- 23.5	25.3	- 36.5	53.3	4.3	6.53	-8.12	-23.30	28.28	-20.00
Industrial crops	17.0	- 17.7	27.9	- 10.9	28.1	1.3	-7.64	-8.00	-10.07	29.90	-20.79
Forage plants	19.7	- 10.7	17.8	- 23.0	32.6	19.8	7.76	-34.70	-18.83	17.03	-4.89
Vegetables and horticultural products	- 14.9	14.6	4.3	- 4.8	- 19.8	- 7.2	-6.38	15.36	-0.80	-19.11	24.55
Potato	- 2.5	- 1.3	6.7	- 6.9	- 16.0	- 23.2	55.30	-8.64	-8.94	7.51	1.03
Fruits	- 0.3	0.3	- 4.4	1.4	8.6	1.4	11.35	-7.18	3.33	-13.12	-3.79
Wine	36.4	- 21.0	6.4	4.3	- 4.7	1.8	-7.82	7.98	0.45	-10.89	-14.54
Olive oil	...	...	...	...	...	...	...	...	...	...	...
Other crop products	12.1	2.2	- 13.9	- 11.0	55.0	- 19.9	-4.83	-12.01	4.85	-25.53	-9.78
Animal production	1.0	10.1	- 4.3	3.3	- 1.2	6.7	-2.23	-6.48	-0.49	-5.10	3.88
Animals	0.9	11.3	- 1.8	4.8	- 3.2	11.0	-2.48	-6.21	-3.72	-4.62	3.77
Cattle	- 8.3	12.6	- 13.2	15.2	- 6.2	23.5	-15.19	-11.54	-7.38	-7.26	-12.28
Pigs	5.9	13.9	5.7	- 2.1	- 4.3	5.3	2.45	-6.59	-2.89	-7.42	8.07
Equines	- 21.0	- 54.6	302.2	11.1	- 90.3	788.5	-62.88	136.30	-61.25	326.95	-53.25
Sheep and goats	10.8	17.2	- 17.2	5.4	- 5.6	- 0.3	1.10	-8.46	1.51	-5.99	18.23
Poultry	- 4.0	- 5.6	1.8	8.8	11.5	9.1	2.85	6.28	-2.36	8.12	9.13
Other animals	...	...	...	...	...	...	...	...	...	...	...
Animal products	1.2	7.3	- 9.1	0.2	3.6	- 1.2	-1.66	-7.08	6.57	-6.18	4.16
Milk	2.2	- 0.2	- 3.1	1.5	0.6	0.8	-0.48	-9.22	0.51	-7.87	2.51
Eggs	7.8	9.6	- 10.3	- 5.1	2.2	1.5	-3.77	3.20	-6.46	-8.23	2.46
Other animal products	- 40.7	136.4	- 48.9	12.8	54.0	- 31.8	-7.33	-26.66	146.42	9.81	16.70
Agricultural services	**9.0**	**- 6.9**	**8.7**	**- 11.8**	**14.8**	**3.8**	**3.81**	**-4.10**	**-8.20**	**2.37**	**2.45**

Table 4. Intermediate consumption of agriculture at current prices, Republic of Serbia

Description	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
						RSD million					
Intermediate consumption	**370 166.1**	**344 055.9**	**371 854.1**	**336 109.2**	**366 069.2**	**377 541.4**	**399 918.8**	**437 683.7**	**514 034.2**	**490 408.1**	**487 962.2**
Seeds and planting stock	34 673.5	31 881.7	34 457.6	28 003.2	33 822.4	35 453.8	35 500.0	37 980.7	49 248.1	57 486.4	58 049.5
Energy; lubricants	33 409.2	35 804.2	51 612.0	52 305.1	61 610.8	68 856.6	65 140.4	73 285.6	75 545.8	68 303.7	69 330.4
Fertilisers and soil improvers	45 673.8	40 436.3	38 609.1	34 264.8	23 597.4	29 098.4	30 406.0	40 735.0	69 950.3	55 360.5	56 209.9
Plant protection products and pesticides	22 937.6	21 372.4	20 024.2	13 416.8	16 796.0	14 477.0	14 805.3	20 438.0	22 800.3	23 835.3	23 953.6
Veterinary expenses	13 610.1	13 401.7	14 029.2	10 048.9	11 923.7	11 476.0	14 388.1	15 676.8	17 642.7	17 379.8	16 448.7
Feeding stuff	129 673.9	119 359.6	128 775.3	116 492.8	126 881.7	130 818.6	146 579.7	149 932.0	165 265.2	142 806.5	137 815.7
Maintenance of materials	23 475.5	18 609.1	19 192.6	18 488.9	26 769.4	22 532.2	26 550.8	30 903.0	35 746.8	38 550.0	38 819.5
Maintenance of buildings	5 790.8	5 996.3	6 322.1	5 695.3	5 987.1	6 007.2	6 749.1	7 049.4	8 039.2	9 456.3	9 471.1
Agricultural services	15 023.5	13 813.9	14 999.9	13 856.1	15 000.5	15 313.0	15 997.6	17 119.2	20 177.7	20 338.9	20 420.8
Other goods and services	45 898.2	43 380.6	43 832.0	43 537.2	43 680.3	43 508.6	43 801.7	44 564.0	49 618.1	56 890.9	57 443.0
						Structure (%)					
Intermediate consumption	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Seeds and planting stock	9.4	9.3	9.3	8.3	9.2	9.4	8.9	8.7	9.6	11.7	11.9
Energy; lubricants	9.0	10.4	13.9	15.6	16.8	18.2	16.3	16.7	14.7	13.9	14.2
Fertilisers and soil improvers	12.3	11.8	10.4	10.2	6.4	7.7	7.6	9.3	13.6	11.3	11.5
Plant protection products and pesticides	6.2	6.2	5.4	4.0	4.6	3.8	3.7	4.7	4.4	4.9	4.9
Veterinary expenses	3.7	3.9	3.8	3.0	3.3	3.0	3.6	3.6	3.4	3.5	3.4
Feeding stuff	35.0	34.7	34.6	34.7	34.7	34.7	36.7	34.3	32.2	29.1	28.2
Maintenance of materials	6.3	5.4	5.2	5.5	7.3	6.0	6.6	7.1	7.0	7.9	8.0
Maintenance of buildings	1.6	1.7	1.7	1.7	1.6	1.6	1.7	1.6	1.6	1.9	1.9
Agricultural services	4.1	4.0	4.0	4.1	4.1	4.1	4.0	3.9	3.9	4.1	4.2
Other goods and services	12.4	12.6	11.8	13.0	11.9	11.5	11.0	10.2	9.7	11.6	11.8

Table 5. Intermediate consumption of agriculture at constant prices of the previous year, Republic of Serbia

Description	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	RSD million										
Intermediate consumption	**385 035.9**	**345 109.9**	**376 068.9**	**323 429.4**	**366 352.8**	**392 755.7**	**386 817.1**	**383 252.1**	**405 795.4**	**512 816.2**	**472 313.7**
Seeds and planting stock	37 594.2	32 229.4	33 162.9	19 319.7	32 135.3	44 378.0	37 368.4	35 662.6	35 826.5	50 234.0	55 165.9
Energy; lubricants	32 710.6	37 733.3	52 719.1	47 932.3	59 292.4	68 708.1	67 854.6	64 568.8	66 816.9	77 080.2	73 073.4
Fertilisers and soil improvers	50 314.9	37 530.0	42 149.7	36 606.3	23 606.8	27 293.7	30 390.8	28 577.6	33 438.4	74 232.1	43 810.3
Plant protection products and pesticides	21 926.3	20 067.3	19 865.3	13 572.5	18 428.8	15 235.6	14 790.6	15 139.2	18 040.6	23 973.6	18 706.4
Veterinary expenses	13 033.7	13 683.9	13 644.8	10 285.5	11 113.7	11 709.2	14 373.7	13 632.0	14 628.2	16 782.7	16 783.5
Feeding stuff	141 075.9	126 134.5	133 445.9	116 161.7	126 112.4	138 800.1	130 525.1	131 935.9	139 903.5	156 178.2	132 964.5
Maintenance of materials	23 673.6	17 816.0	18 151.7	17 882.6	30 211.9	21 837.9	25 732.6	27 592.0	30 505.9	35 850.2	40 803.7
Maintenance of buildings	5 376.3	5 872.0	6 600.8	5 511.9	5 969.6	5 956.9	6 539.4	6 713.7	6 924.4	8 063.3	10 202.9
Agricultural services	14 653.5	13 989.5	15 012.5	13 228.9	15 909.3	15 569.8	15 683.9	16 150.2	15 715.2	20 655.0	20 836.4
Other goods and services	44 676.9	40 054.0	41 316.2	42 927.9	43 572.5	43 266.4	43 557.9	43 280.0	43 995.7	49 766.9	59 966.6
	Volume changes										
Intermediate consumption	**8.3**	**-6.8**	**9.3**	**-13.0**	**9.0**	**7.3**	**2.5**	**-4.2**	**-7.3**	**-0.2**	**-3.7**
Seeds and planting stock	12.1	-7.0	4.0	-43.9	14.8	31.2	5.4	0.5	-5.7	2.0	-4.0
Energy; lubricants	-13.0	12.9	47.2	-7.1	13.4	11.5	-1.5	-0.9	-8.8	2.0	7.0
Fertilisers and soil improvers	15.8	-17.8	4.2	-5.2	-31.1	15.7	4.4	-6.0	-17.9	6.1	-20.9
Plant protection products and pesticides	1.5	-12.5	-7.1	-32.2	37.4	-9.3	2.2	2.3	-11.7	5.1	-21.5
Veterinary expenses	0.6	0.5	1.8	-26.7	10.6	-1.8	25.2	-5.3	-6.7	-4.9	-3.4
Feeding stuff	12.8	-2.7	11.8	-9.8	8.3	9.4	-0.2	-10.0	-6.7	-5.5	-6.9
Maintenance of materials	13.9	-24.1	-2.5	-6.8	63.4	-18.4	14.2	3.9	-1.3	0.3	5.8
Maintenance of buildings	-2.4	1.4	10.1	-12.8	4.8	-0.5	8.9	-0.5	-1.8	0.3	7.9
Agricultural services	9.0	-6.9	8.7	-11.8	14.8	3.8	2.4	1.0	-8.2	2.4	2.4
Other goods and services	7.3	-12.7	-4.8	-2.1	0.1	-0.9	0.1	-1.2	-1.3	0.3	5.4

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