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Potential Threats to Apple Producers in Bulgaria and Poland in Light of the EU-Mercosur Partnership Agreement

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Abstract:

Purpose: *The aim of the article was a comparative analysis of apple production and market dynamics in Bulgaria and Poland for the period 2020-2023 and an analysis of Polish and Bulgarian apple exports and imports to and from Mercosur countries, including an assessment of potential threats in the fruit market.*
Design/Methodology/Approach: *This study presents a comparative analysis of apple production and market dynamics in Bulgaria and Poland for the period 2020-2023, using data on harvested areas, average yields, production, gross production, subsidies, fresh produce prices, and foreign trade flows. The analysis used a case study method, a qualitative research approach, for in-depth, detailed research. The study was based on statistical data from the FAOSTAT database, which is an official platform of the Food and Agriculture Organisation of the United Nations (FAO), as well as the World Integrated Trade Solution, which provides internationally comparable information on the status and dynamics of some indicators of apple production in selected countries. The COMTRADE database was also used as a source of trade data.*
Findings: *A comparison between Bulgaria and Poland in apple production and trade reveals significant differences. Poland is the largest producer in the EU and a significant exporter, supported by high yields, low costs and developed logistics. Bulgaria has smaller areas and volumes, but has climatic advantages for producing high-quality apples, including organic farming and traditional varieties. The data discussed above shows that the EU's agreement with Mercosur countries does not pose a threat to apple producers in Poland and Bulgaria. Polish and Bulgarian exports and imports are primarily directed to European countries. The article processing charge (APC) was funded by the National Support Centre for Agriculture (KOWR) under contract No. CEN.BDG.WP.6515.2.2025.EJ.57.*
Practical Implications: *The results of the research shall be of interest for scientists, politicians and decision makers. The obtained conclusions may be helpful in formulating a national strategy (Bulgaria and Poland) regarding support for the horticultural sector in the context of negotiations concluded on a Partnership Agreement between representatives of the European Union and the Mercosur countries (Argentina, Brazil, Paraguay, and Uruguay).*

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Originality/Value: *The analysis of changes in trade and the assessment of the influence of supply offer apple from Mercosur countries is of great importance for horticultural producers and processors in the context of making strategic decisions.*

Keywords: *Yield, fruit, gross output, price, export, import, EU-Mercosur Partnership Agreement*

JEL codes: *F51, F55, Q17.*

Paper type: *Research article.*

1. Introduction

Nearly a year ago, negotiations concluded on a Partnership Agreement between representatives of the European Union and the Mercosur countries (Argentina, Brazil, Paraguay, and Uruguay). Mercosur countries, particularly Argentina and Brazil, occupy a key position in global supply chains in the agri-food sector, which is a significant part of the economies of Mercosur countries and also of EU countries, including Poland and Bulgaria. The article analyzes the impact of the renegotiated agreement on apple producers in Poland and Bulgaria.

This study presents a comparative analysis of apple production and market dynamics in Bulgaria and Poland for the period 2020-2023, using data on harvested areas, average yields, production, gross production, subsidies, fresh produce prices, and foreign trade flows. The results show distinct differences in the scale and structure of the sector between the two countries.

While Poland is establishing itself as a leading producer and exporter in the EU, with a high degree of mechanisation and market integration, Bulgaria has demonstrated a more limited, conservative development, focused mainly on domestic consumption. However, Bulgarian apple production is distinguished by its potential for developing organic production.

The study provides a valuable basis for formulating recommendations to increase the competitiveness and sustainability of apple production in both countries, as well as for their roles in European agri-food chains. Polish and Bulgarian exports and imports of apples to and from Mercosur countries are also presented, including an assessment of potential threats to the fruit market.

Agriculture is central to achieving the Sustainable Development Goals, as it not only provides access to sufficient, nutritious and safe food but also lays the foundation for sustainable production systems. Despite this key role, the agri-food sector faces

several challenges that vary in intensity and nature across regions and territories. These challenges include pressure on natural resources, the need to adapt to climate change, technological innovation and the socio-economic transformation of rural areas (FAOSTAT, 2024).

Global production of staple crops has been steadily increasing over the past decade, rising by over 2 billion tonnes between 2010 and 2023. This trend is driven by advances in production technologies, intensification of cultivation through greater use of irrigation, fertilisers, pesticides and high-yielding cultivars, and expansion of cultivated areas. Despite the overall upward trend, growth fluctuated, with the lowest values observed in 2020 due to adverse climatic conditions and the effects of the pandemic, while peak increases were recorded in 2011 and 2023 (FAOSTAT, 2024).

In-depth knowledge of the specifics and factors that influence agricultural sustainability is a prerequisite for formulating adequate strategies and policies. Only by identifying the main drivers of agricultural development can we promote efficiency and productivity without allowing excessive exploitation of natural resources. In this context, agriculture should be considered not simply as a sector of the economy, but as a complex system whose role is crucial to achieving the balance among the social, economic and environmental dimensions of sustainable development.

The EU-Mercosur Partnership Agreement contains provisions facilitating access for both EU producers to the Mercosur market and South American producers to the EU market. This agreement is important because it affects the economies of countries that collectively generate over 20% of global GDP and have a population of nearly 750 million.

Furthermore, Mercosur countries, particularly Argentina and Brazil, hold key positions in global agri-food supply chains. These countries are also the largest exporters among Mercosur countries. In 2024, Argentina accounted for 21% of the group's total export value, while Brazil accounted for a staggering 72%. EU agri-food trade with Mercosur countries is characterized by significant asymmetry – marginal exports and relatively high imports.

In 2024, the value of EU food exports to Mercosur amounted to EUR 3.3 billion, while imports amounted to EUR 24.1 billion. The deficit amounted to EUR 20.8 billion. The EU's external agri-food exports are comparable to those of Mercosur countries. EU agri-food imports, however, are several times greater than those of Mercosur countries (Szczepaniak, Ambroziak, 2025). The agri-food sector is a crucial part of the economies of Mercosur countries, as well as EU countries, including Poland and Bulgaria.

This has generated significant concerns and numerous protests from opponents of the agreement, as the renegotiated agreement does not interfere with the EU's strict food safety standards. Farmers in Mercosur countries don't have to meet many of the same

standards related to plant and animal production that EU farmers must. Therefore, farmers in Mercosur countries are able to produce food more cheaply .

2. Literature Review

Research on global apple production outlines sustainable growth in area and yields over recent decades, with particular attention to the roles of new technologies, climate change, and the dynamics of international trade.

Global apple production is highly concentrated in Asia and Europe, with China taking the lead with over 50% of the world share (Brown, Miller, 2019), followed by Turkey (5%), the USA (4.7%), and Poland (4.5%) (World Population Review, 2025).

The global apple industry faces challenges related to sustainability, quality and access to new markets (FAO, 2021). Worldwide and in the European Union, several authors have examined trends and challenges in apple production (Ceban and Lucaşenco, 2021; Dimitrijević *et al.,* 2023; Ivanova and Georgiev, 2018; Mahat, 2024; Muder *et al.,* 2022; Neri, 2004; Popescu and Cosmulescu, 2024; Radomirska *et al.,* 2012; Tandel and Aithal, 2025; Wilton, 2001; Żurawicz *et al.,* 2016), with emphasis on policies within the Common Agricultural Policy and regional disparities.

According to Eurostat (2019), apple orchards in the EU are mainly concentrated in Poland, Italy and Romania, which together form nearly 60% of the total area. Some authors emphasise that European production is characterised by a high degree of market integration, but also by increasing risks related to climate change and fluctuations in consumer demand (Pieniążek *et al.,* 2020).

Reports by the Bulgarian Ministry of Agriculture (MZm, 2021) confirm that, despite increased yields, Bulgaria remains a net importer and relies on supplies from Poland and other EU Member States.

While in Poland the picture is significantly different, the country is a leading producer in the EU and is distinguished by a high degree of specialisation and modernisation of production processes (Świerczyński *et al.,* 2019).

Other studies were noted that the Polish apple industry is highly export-oriented, with the main markets being EU countries, the Middle East and Asia (Pieniążek *et al.,* 2021). That is confirmed by the European Commission report (2022), according to which Poland continues to be a key factor in the stability of the European apple market.

3. Research Methodology

The study was based on statistical data from the FAOSTAT database, which is an official platform of the Food and Agriculture Organisation of the United Nations

(FAO), as well as the World Integrated Trade Solution, which provides internationally comparable information on the status and dynamics of some indicators of apple production in selected countries. The analysis used a case study method, a qualitative research approach, for in-depth, detailed research. The study focuses on Bulgaria and Poland, enabling in-depth analysis using selected indicators for the period 2020-2023.

The focus was on the following indicators: 1) harvested areas (ha); 2) average yield (kg/ha); 3) production (t); 4) gross apple production, calculated based on produced quantities and purchase prices of farmers, which represents the monetary expression of production at the producer level; 5) comparative analysis of subsidies and prices of apple production; 6) comparative analysis of import and export of apples by selected countries.

The selected indicators allow tracking the scale of resources used, their utilisation efficiency, and the final result in both natural and monetary terms. The analysed data were interpreted in the context of the sustainable agriculture of the two countries. In this way, the methodology combines quantitative analysis of statistical data with qualitative interpretation, aiming to reveal significant differences and potential trends in the agricultural sector's development. And it will determine the impact of apple exports and imports to and from Mercosur countries on the Polish and Bulgarian agricultural markets.

4. Research Results and Discussion

4.1 Apple Production in the European Union

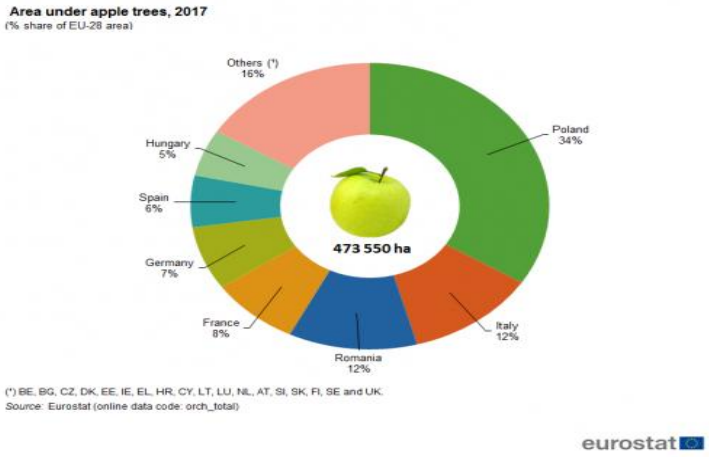
In 2017, the area of apple plantations in the EU amounted to 473550 ha, with one-third concentrated in Poland (160800 ha), and significant shares in Italy (55800 ha) and Romania (55100 ha), according to Eurostat data. Together with France, Germany, Spain and Hungary, these countries account for 83.7% of the plantations. In the period 2012-2017 the areas increased by 23900 ha, mainly in Poland, Romania and Italy, while a significant decrease was observed in the Czech Republic and Slovakia (Figure 1).

These data clearly show the uneven distribution of apple plantations in the EU, determined both by differences in agro-climatic conditions and by specific national policies for the development of fruit growing.

The observed dynamics of expansion or contraction in individual countries are closely related to changes in market conditions and the degree of integration into the European and global agri-food chain.

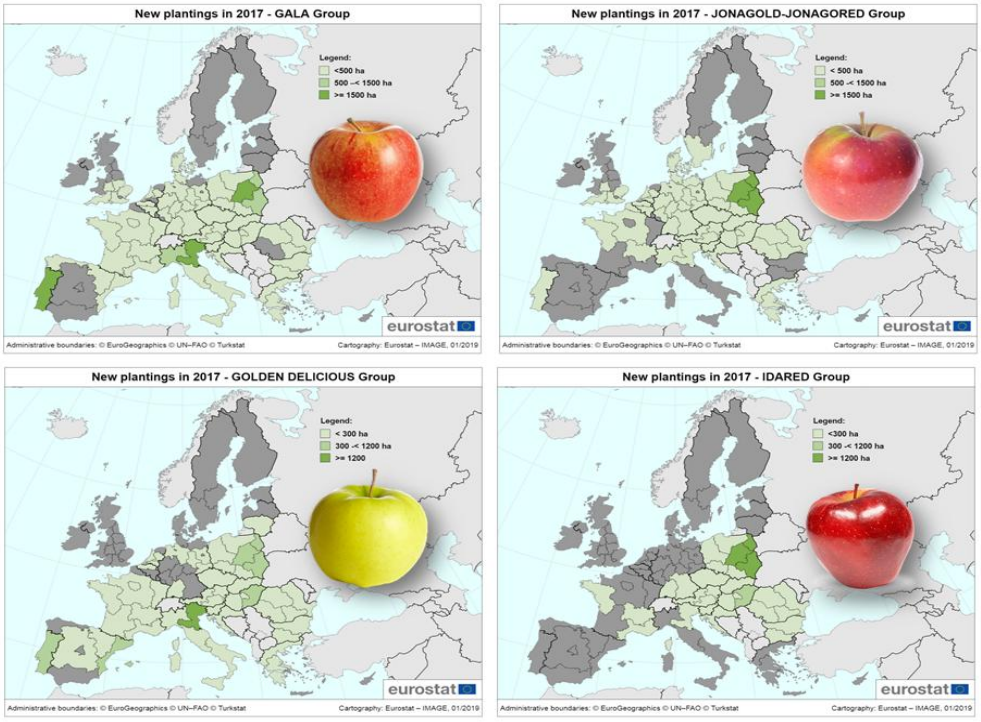
The distribution of apple plantation in Europe for the period 2012-2017 (EUROSTAT, 2019), provides valuable information on the spatial dynamics of fruit production at the level of NUTS1 regions (Figure 2).

Figue 1. *Apple area distribution in EU (%)*



Source: *EUROSTAT data.*

Figure 2. *Plantations of apple trees by regions (NUTS1)*



Source: *EUROSTAT data.*

That clearly illustrate not only the territorial differences, but also the varietal specificity in the cultivation of different apple groups such as Gala, Jonagold/Jonagored, Golden Delicious and Idared. Varietal division is key to understanding production strategies, as market preferences and agro-climatic

conditions across regions determine producers' choices and competitiveness (EUROSTAT, 2019).

Apple plantations in the EU during 2012–2017 were concentrated in countries with a favourable climate, long-standing traditions, and a strong market orientation. Eurostat data show that cultivar Gala was most strongly represented in France and Italy, while Poland was establishing itself as a leader in cultivar Jonagold/Jonagored.

A more specific concentration for Golden Delicious and Idared was observed in Southern and Central Europe, where climatic conditions were favourable for their cultivation. These processes were influenced not only by market conditions but also by the implementation of measures under the EU Common Agricultural Policy, which stimulated the modernisation and restructuring of the sector.

4.2 The Specificity of Apple Production in Poland and Bulgaria

The comparison between Bulgaria and Poland clearly highlights different development models. In Bulgaria, apple plantations remain limited and concentrated in traditional orchard areas, indicating a more conservative approach and a desire for partial renewal. While in Poland, active investments were made in new cultivars such as Jonagold and Idared, which are in demand on international markets, reinforcing the sector's export orientation.

Thus, the country positions itself as a leading producer and key player in the European apple industry, while Bulgaria remains focused on maintaining existing capacity.

The study of apple production in Bulgaria and Poland is of scientific and practical interest, as the two countries present contrasting development models within the European Union. Poland is the largest apple producer in the European Union, with significant areas, a high market orientation and strong integration into international trade.

While Bulgaria is characterised by more limited production, oriented mainly to the domestic market, it has potential for developing organic production. Comparing the two countries reveals differences in agro-climatic conditions and varietal structure. Poland has large areas and significant varietal diversity, which ensures competitiveness in global markets. In Bulgaria, the climate is favourable to the production of high-quality fruit, but the lack of scale and limited integration into market chains hinder the sector's expansion.

The topic becomes even more relevant in the context of sustainable agriculture, as apples are among the most consumed fruits in Europe, and the way they are produced affects food security, the ecological footprint, and the socio-economic development of rural regions. The comparative analysis of the two countries provides a valuable

perspective for understanding regional differences and the challenges to sustainability and competitiveness within the European Union.

The study aims to conduct a comparative analysis of apple production in Bulgaria and Poland for the period 2020-2023, by examining key agro-economic indicators. The use of a comparable currency (EUR) enables an objective comparison of economic results across the two countries. The study tracks differences in subsidies and prices for 1 kg of apples, as well as the impact of imports and exports.

Based on this, the trends, differences and potential of the two countries were outlined, and conclusions were formulated for the development of sustainable agriculture. The aim of the article is also to try to answer the question whether Poland and Bulgaria have to fear competition from Mercosur countries in the production and market of apples in the agri-food sector, which is important for these countries?

The comparative analysis of Bulgaria and Poland includes indicators that provide a comprehensive picture of the state and development of apple production in both countries. The indicators analysed are harvested areas, average yields, and production, which outline the scale and efficiency of the sector. These quantitative indicators allow tracking the dynamics of production over time and highlighting the structural differences between the two countries.

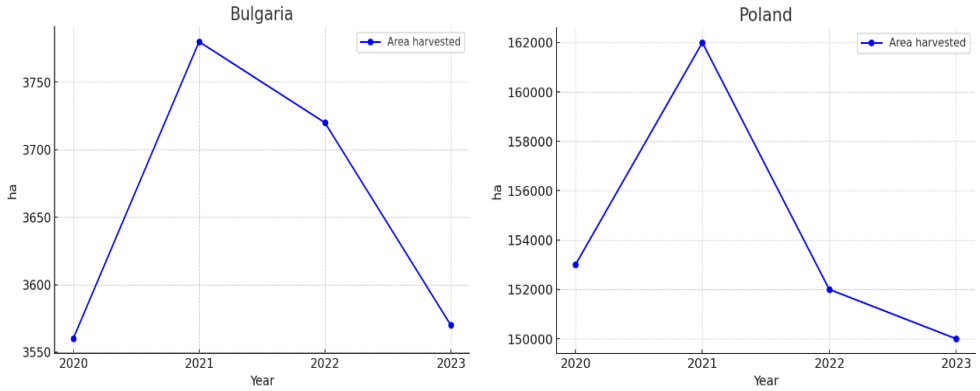
In addition to production characteristics, the analysis also includes the gross production, which reflects the economic weight of apple production, as well as the impact of subsidies within the framework of the Common Agricultural Policy. The prices of fresh apples, which are directly related to consumer accessibility and producers' competitiveness, as well as foreign trade flows of imports and exports, which track the degree of market integration, were studied.

The comprehensive approach outlined in this way provides not only a quantitative but also a qualitative assessment of the sector, enabling analysis of both the current state and potential directions for the development of apple production in Bulgaria and Poland.

The analysis of harvested areas (ha) in Bulgaria and Poland for the period 2020-2023 reveals significant differences in the scale and dynamics of agricultural production between the two countries. In Bulgaria, a relatively small share of harvested areas was observed compared to Poland, with no fluctuations (Figure 3). That suggests Bulgarian production was relatively stable in terms of area, but at the same time, limited. The lack of significant changes between years may be associated with an established farm structure, as well as weaker dynamics in changes in harvested areas. This pattern aligns with the broader characteristics of the sector in Bulgaria, including a moderate level of intensification and the absence of profound structural transformations in recent years.

However, in Poland, the picture is different. The size of harvested areas is significantly larger, highlighting the sector's broader development in the country (Fig. 3). In addition, there is a more tangible dynamic over the years, indicating greater flexibility and adaptability in agricultural production. These changes are the result of a combination of better mechanisation, greater available resources, active policies to support producers, more favourable agro-climatic conditions, and an orientation towards market expansion.

Figure 3. *Area harvested for apples (ha) in Bulgaria and Poland (2020-2023)*



Source: *FAOSTAT data.*

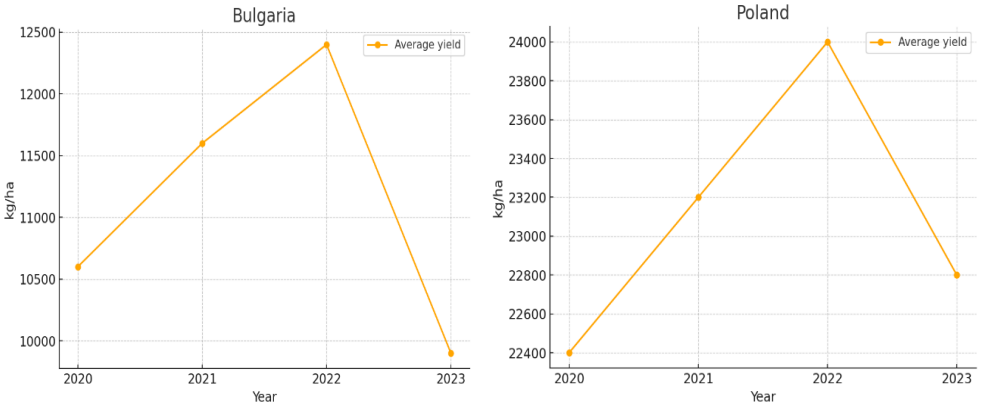
The average yield (kg/ha) of apples in Bulgaria and Poland during 2020-2023 reveals important differences that complement the picture outlined by the dynamics of harvested areas. In Bulgaria, yields per hectare show relatively stable values, varying within moderate limits without sharp year-to-year fluctuations (Figure 4). That is indicative of a relatively sustainable production, in which technological practices and agroclimatic conditions maintain yields at a stable level.

However, despite this stability, there is no clear trend of increase, suggesting slower intensification and limited implementation of innovations and modern agrotechnology that ensure stable yields but not a significant increase in their levels.

In Poland, yields show higher absolute values and more dynamic development than in Bulgaria. The data indicate a clearly pronounced trend towards improvement at the beginning of the period under review, which can be explained both by favorable climatic conditions and by active investments in modern equipment, selection and agrotechnical practices (Figure 4).

Even when some stabilisation or a minimal decline is observed, the yield level remains significantly higher than in Bulgaria, reflecting the greater degree of production intensification and the better organisation of the agricultural sector in Poland.

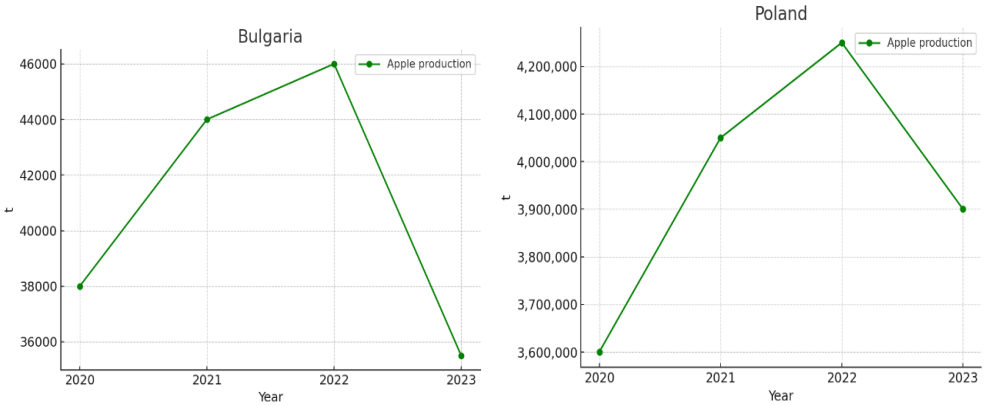
Figure 4. *Average yield for apples (ha) in Bulgaria and Poland (2020-2023)*



Source: *FAOSTAT data.*

In the comparative analysis of apple production, a distinction is observed between the two countries, indicative of different levels of sector development and specific agro-climatic and structural conditions. In Bulgaria, production is characterised by relatively low values that remain stable throughout the period under consideration (Figure 5).

Figure 5. *Apple production (t) in Bulgaria and Poland (2020-2023)*



Source: *FAOSTAT data.*

Although some fluctuations between years are observed, they are not significant and do not indicate structural changes or sharp dynamics. That suggests the sector in the country is characterised by limited production capacity, associated with smaller cultivated areas, more limited investments, and specific agronomic conditions. In this sense, production in Bulgaria can be defined as sustainable, but with lower intensity and less importance than in larger production economies.

The situation in Poland is the opposite (Figure 5), the production level is many times higher than in Bulgaria. Clearly, it outlines the country's position as a significant producer of the crop under consideration. In the period 2020-2022, a clear upward trend is observed, resulting from better agro-climatic conditions, significantly larger harvested areas, and increased investments in modernisation and mechanisation of production. Data for 2023 shows some stabilisation or a slight decrease in production, which can be interpreted as a result of climatic factors or market conditions, but the overall trend remains upward.

4.3 Analysis of Economic Indicators, Subsidies, and Price of Apple Production in Bulgaria and Poland

Comparing data for Bulgaria and Poland, expressed in EUR as a unified currency for international comparisons, reveals distinct differences in the scale and dynamics of agricultural production. While in Bulgaria the sector remains limited and stable within a relatively narrow range, in Poland production shows values many times higher, combined with greater adaptability to market and climatic changes. These differences result from a combination of structural, economic, and agro-climatic factors that shape distinct sector profiles in the two countries.

In Bulgaria, gross apple production ranges from EUR 11.4 thousand (2020) to EUR 14.2 thousand (2022). However, in 2023, it decreased to approximately EUR 11.7 thousand (Fig. 6), indicating relative stability but limited capacity for growth and expansion. Production is focused on satisfying domestic consumption and remains poorly connected to international markets.

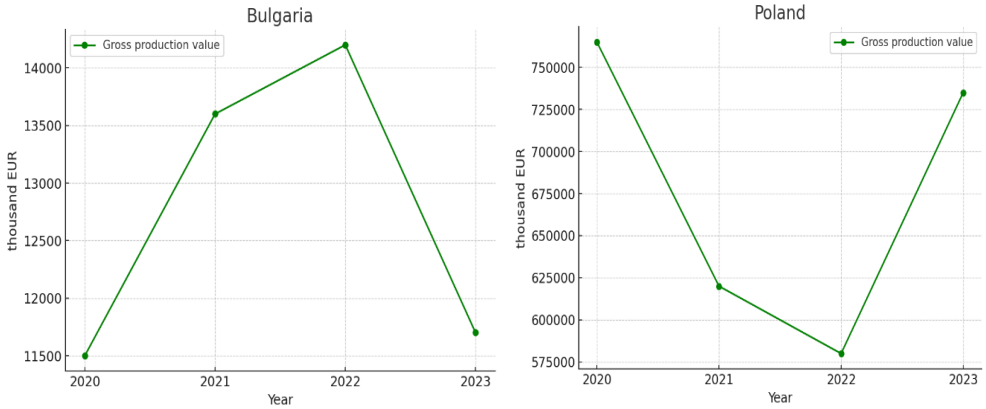
The lack of scale and flexibility makes the sector vulnerable to external shocks related to climate or market dynamics. While Poland demonstrates high production volumes – between EUR 570 thousand (2022) and EUR 776 thousand (2020), with stabilisation at a level above EUR 736 thousand in 2023 (Fig. 6). Despite the fluctuations, the sector clearly demonstrates high productivity, intensive use of modern technologies and a strong market orientation.

That places Poland in a position of leadership in the European Union and a significant player on the international market. Compared with Bulgaria, Poland remains resilient within a limited scope, combining scale and flexibility, which provides it with a strategic advantage and underscores the need for Bulgaria to invest purposefully in modernisation and efficiency gains.

The Common Agricultural Policy in the new programming period 2023-2027 provides greater flexibility to EU Member States, allowing them to target support to apple producers through direct payments, eco-schemes, and rural development interventions. For apple producers, these are opportunities to modernise farms,

implement sustainable practices, and support building shorter supply chains and better market access.

Figure 6. *Gross production value (EUR) of apples in Bulgaria and Poland (2020-2023)*



Source: *FAOSTAT data.*

In Poland, there are no national schemes introduced exclusively for apple production in 2025. Support for the sector is delivered through the general mechanisms of the CAP: direct payments, area payments, and eco-schemes, which are available to all farmers. Apple producers can receive standard income support, including redistributive payments aimed at small and medium-sized farms, as well as incentives for sustainable practices through eco-schemes. The strength of the Polish model lies precisely in the scale of the sector and in the orientation towards general income stability and sustainability, rather than in a separate, targeted scheme for apples.

In Bulgaria, the system is more specific and targeted, as apple producers can benefit from coupled fruit support, paid per hectare, provided that minimum yield and quality requirements are met. In addition, standard CAP instruments such as direct payments, eco-schemes, and rural development measures are available, including investment opportunities in orchard modernisation, irrigation, storage, and processing. The Bulgarian model places greater emphasis on the preservation and renewal of plantations and stimulates real production, which is key to maintaining the sector. However, this means less flexibility compared to Poland, where the instruments are more general and less tied to specific crops.

A comparison of apple prices in Bulgaria and Poland reveals apparent differences, driven by both market structure and trade levels. In Poland, wholesale prices for apples in recent years have ranged from 0,65 EUR/kg to 1,20 EUR/kg, with some varieties, such as “Gala”, offered at 0,70-0,85 EUR/kg at the beginning of the season. Apples for processing are purchased at significantly lower prices, around 0,13-0,15 EUR/kg, which clearly demonstrates the availability of the raw material to the processing

industry. This price level reflects Poland's large-scale production and highly developed export orientation, which gives it a competitive advantage on the international market through economies of scale and low production costs.

In Bulgaria, prices are significantly higher. In wholesale and retail chains, apples are offered at levels of 1,30 EUR/kg to 2,00 EUR/kg, while in supermarkets and specialised stores, prices for certain varieties – such as "Granny Smith" or "Golden Superior" – reach 2,60-2,90 EUR/kg. The difference compared to Poland is due to the smaller production volume, the high dependence on imported quantities and the more limited market structure, which does not allow for economies of scale.

4.4 Comparative Analysis of Foreign Apple Trade in Selected Countries

Foreign trade flows of apples reveal significant differences in the positions of individual countries on the international market, with the volumes and directions of imports and exports determined by production capacity, agro-climatic conditions, and the structure of domestic demand. The analysis was conducted for selected countries, including Poland, Bulgaria, Brazil, Uruguay, Paraguay, and Venezuela, using World Integrated Trade Solution data.

Poland is the leading exporter of apples in the European Union and one of the world's leading producers. In 2023, the country exported around EUR 400 million (817 thousand tons), with Romania, Egypt, Germany, Kazakhstan and Spain as its main trading partners. The competitiveness of Polish apples is due to large-scale production, relatively low production costs and well-developed logistics.

Bulgaria, unlike Poland, is a net importer of apples. In 2023, the country exported only EUR 0,18 million (108 tons), mainly to Romania and, in smaller quantities, to Luxembourg and the United Kingdom. Imports are significant, reaching 50-54 thousand tons per year and totalling over EUR 40 million, with Poland, Italy, Greece, and North Macedonia as the leading suppliers. That shows Bulgaria's structural dependence on imports, especially on Polish production, which dominates trade on the Bulgarian market.

Brazil is a moderate apple exporter, targeting markets in Asia, the Middle East and the European Union. In 2023, Brazilian exports are estimated at EUR 28 million (36 thousand tonnes). The main markets are India, Bangladesh, the United Arab Emirates, Portugal, and Ireland, reflecting the country's ability to diversify its exports beyond South America and to strengthen its position in emerging markets.

Uruguay has a relatively small share of the world market. Trade in apples is limited, with exports and imports in 2023 estimated at 1000 and 3000 tonnes, respectively. Exports are mainly to neighbouring countries, such as Brazil, and to individual EU markets, such as Spain and Portugal. That indicates a focus on regional demand.

Paraguay is a clear net importer of apples, with its dependence on Argentina being almost complete. In 2022-2023, the country imported approximately 17 thousand tons, worth around EUR 6 million, of which over 99% came from Argentina. That highlights the Paraguayan market's high vulnerability to external supply and price fluctuations in the neighbouring country.

Venezuela is a specific case due to the limited availability of official data and the unstable economic and political situation. Apple imports are unstable, mainly due to sporadic deliveries. That limits the country's opportunities for sustainable participation in international apple trade and indicates internal structural difficulties in the agri-food system.

In addition, the comparative analysis based on World Integrated Trade Solution data shows a clear distinction between countries such as Poland and Brazil, which play an active role in the global market as exporters, and countries such as Bulgaria, Paraguay and Venezuela, which rely significantly on imports. Uruguay occupies an intermediate position, with limited trade participation and a strong regional orientation.

That highlights that the dynamics of foreign trade in apples depend not only on production capacities and climatic conditions, but also on policies, infrastructure, and countries' ability to integrate into international agri-food chains. The data discussed above shows that the EU's agreement with Mercosur countries does not pose a threat to apple producers in Poland and Bulgaria. Polish and Bulgarian exports and imports are primarily directed to European countries.

5. Conclusions

A comparison between Bulgaria and Poland in apple production and trade reveals significant differences. Poland is the European Union's largest producer and a significant exporter, supported by high yields, low costs, and well-developed logistics. The main markets include Germany, the United Kingdom, Egypt and countries in Eastern Europe and the Middle East. For Bulgaria, the import of Polish apples is essential to guarantee supply and maintain competitive prices.

Bulgaria has smaller areas and production, but it has climatic advantages for producing high-quality apples, including organic farming and traditional cultivars. Geographical proximity to the Balkans and the Middle East facilitates exports, which are limited but oriented towards Romania, Greece, Serbia and individual markets in the Middle East.

The analysis shows that Bulgaria maintains stable but low areas and yields, which make it primarily oriented towards domestic consumption. At the same time, Poland combines large areas and high productivity, which guarantee significantly larger volumes and confirm its leadership role. Technological investments and production intensification contribute to increasing efficiency and competitiveness.

The analysis of gross production confirms the differences as Bulgaria is in the range of EUR 11-14 thousand, while Poland reaches EUR 570-776 thousand. Support schemes also have an impact: in Poland, subsidies stimulate market orientation and integration with the processing industry, while in Bulgaria, support is mainly aimed at preserving plantations, without actively encouraging exports or the development of processing.

At the global level, Poland is positioned as an active exporter with sustainable integration into trade chains, while Bulgaria plays a more limited role and is highly dependent on imports. Brazil is establishing itself as an exporter, while Paraguay and Venezuela remain highly dependent on imports. The overall picture shows that competitiveness in the sector depends not only on natural conditions but also on modernisation, effective policies, and producers' integration into international markets.

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