



What do we know about the future of agriculture in Argentina, Brazil, Paraguay, and Uruguay?

The Mercosur Outlook

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INTRODUCTION

This report constitutes a long-term vision for key variables of the agricultural sector in the Mercosur countries: Argentina, Brazil, Paraguay and Uruguay (or ABPU, with both terms used interchangeably)¹. The objective is not to forecast the sector's future but to serve as a reference tool, considering long-term drivers.

This study addresses the question: what will happen to relevant agricultural variables over the next decade if current trends persist? Although based on a quantitative model, the results are not merely model outputs; they undergo a thorough revision process with experts from each country. The outcomes are also conditional on specific assumptions, including macroeconomic conditions, government policies, weather, international agreements, and other influencing factors.

The primary objectives of this report are:

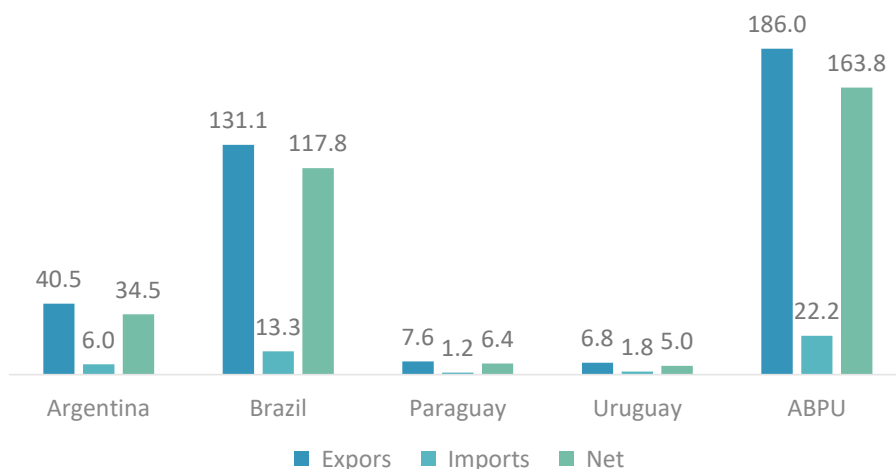
- (1) *To provide a baseline for other scenario analysis, such as policy evaluations.* While international organizations like FAO and OECD provide global agricultural baseline projections, localized information for Mercosur provides valuable insights tailored to the region, expanding the resources available to policy researchers.
- (2) *To offer a regional perspective on the agricultural sector.* Projections depend on various assumptions about future trends, highlighting the need for a Mercosur-focused outlook that captures the bloc's distinct characteristics and perspectives.
- (3) *To promote discussion on long-term issues in the agricultural sector.* High short-term market volatility often dominates debates, sidelining long-term challenges. Given the importance of these topics for development, exercises like this help maintain strategic thinking on the public policy agendas.
- (4) *To foster collaboration and knowledge exchange among institutions in the four countries.* Regular dialogue on future sector challenges and how to address them is invaluable for preparing for upcoming problems.

The ABPU countries play a pivotal role in global food security, maintaining a strong position as a net food exporter. Together, they form a powerful economic bloc, with agricultural exports valued at \$186 billion and a net agri-food trade surplus of \$164 billion, underscoring their importance in the global food supply chain (**Figure 1**). For instance, ABPU countries are particularly influential in the international soybean market, accounting for more than half of world trade (**Figure 2**).

Agriculture remains a cornerstone sector of ABPU economies, contributing significantly to their exports. Notably, 10 of their top 20 exported products are in the agri-food sector (**Figure 3**).

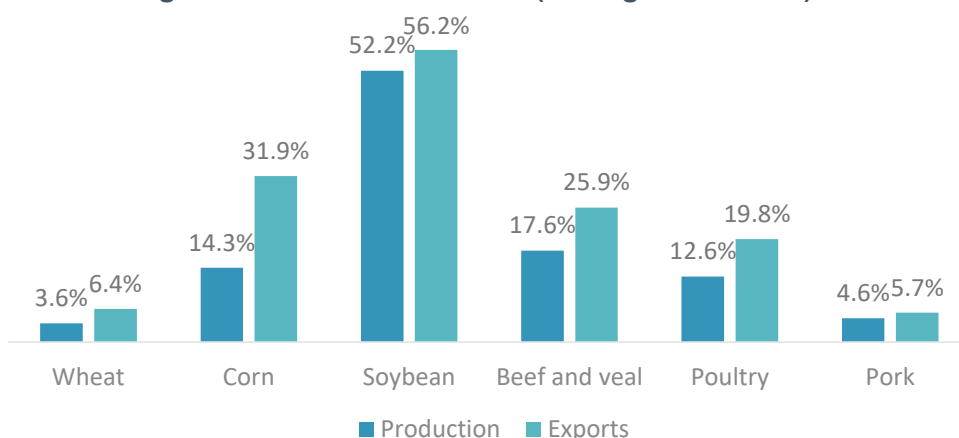
¹ In future editions the analysis could be extended to other countries such as Bolivia, incorporated to Mercosur in July 2024, Venezuela that is currently suspended, or even beyond Mercosur to develop a Southern Cone Outlook.

Figure 1. Agricultural Trade (average 2021-2023) - billion USD



Source: Comtrade

Figure 2. Share in word total (average 2021-2023) %

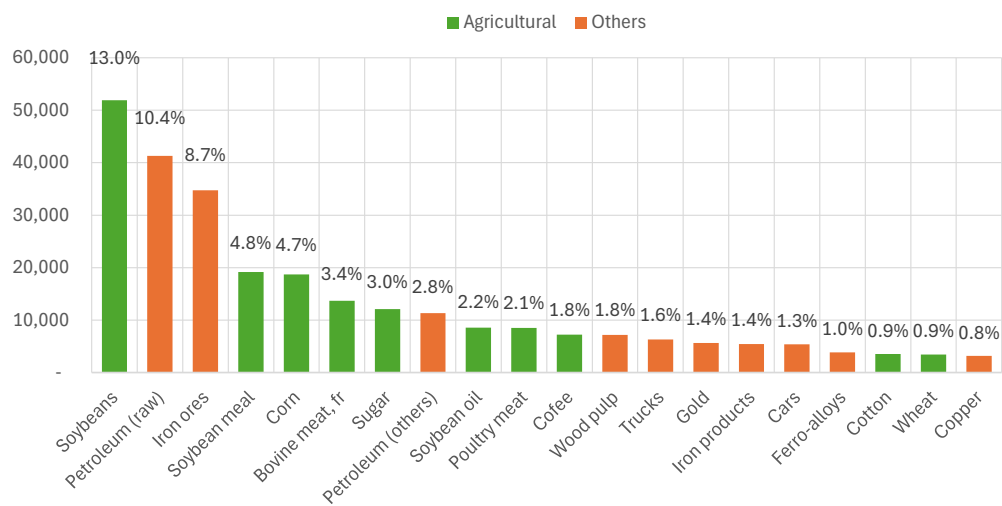


Source: Comtrade and OECD-FAO

To project the figures in this report, a three-step methodology was employed. The first step involved establishing core assumptions for key drivers. For instance, population and GDP growth rates were sourced from international organizations, specifically the United Nations (UN, 2024) and the IMF's World Economic Outlook (IMF, 2024a; IMF, 2024b). It was assumed that real exchange rates, oil prices, and fertilizer prices would remain stable throughout the projection period. Additionally, policy conditions as of August 2024 were held constant to provide a consistent baseline, without incorporating potential future policy changes.

The second step applied a partial equilibrium model known as PEATSim-Ar, which was initially developed by Stout & Abler (2004) and later adapted by INAI Foundation (2013) to meet local requirements. This model enables detailed simulations of agricultural trade and production, generating projections based on various economic and policy variables.

Figure 3. ABPU top 20 exported products – Billion USD and share of merchandise exports (average 2021-2023)



Source: Based on Comtrade – HS 4 digits

In the third and final step, experts from the Mercosur countries reviewed the model’s assumptions and outputs, adjusting to better reflect realistic market conditions. This iterative process incorporated expert feedback and revisions ensuring robust, reliable projections while maintaining consistency. Adjustments were incorporated by returning to earlier steps as needed.

This structured and collaborative process demonstrates a commitment to evidence-based, strategic planning in agricultural trade and food security. By integrating data-driven modeling with expert validation, this work aims to anticipate and address future challenges and opportunities within the global agri-food landscape.

In addition to quantifying production and trade dynamics, this Outlook also emphasizes the strategic role of sustainability, innovation, and the bioeconomy in shaping Mercosur’s agricultural future. The capacity of the bloc to maintain competitiveness will increasingly depend on the adoption of climate-smart practices, the integration of digital and traceability tools, and the development of bio-based industries. Moreover, the report highlights the products that are expected to define the region’s trajectory over the next decade—soybeans and their derivatives, corn, meat, and biofuels—underscoring both their economic significance and the environmental and technological challenges associated with their expansion.

ECONOMIC STRUCTURE AND AGRICULTURAL SECTORS IN MERCOSUR COUNTRIES

Mercosur — comprising Argentina, Brazil, Paraguay, and Uruguay (ABPU) — stands as one of the most significant economic and agricultural blocs in Latin America and the Caribbean (LAC). Collectively, these four nations account for around 40% of the region’s population and close to half of its GDP. Agriculture is a defining element of their economies, contributing significantly to export revenues, rural employment, and food security. The bloc’s agricultural exports surpass USD 186 billion annually, positioning Mercosur among the most influential suppliers in global food systems (World Bank, 2025; OECD, 2023).

While the member states share structural similarities, reliance on commodity exports, deep integration into international markets, and exposure to climate and economic volatility, each country possesses distinct economic structures, production systems, and policy frameworks. These differences have fostered complementary strengths: Brazil’s scale and technological prowess, Argentina’s resource endowment and processing capabilities, Paraguay’s cost competitiveness, and Uruguay’s premium, sustainability focused branding. This combination gives Mercosur not only regional dominance but also strategic relevance in shaping the future of global agriculture.

Argentina

Argentina is the second largest economy in Mercosur, contributing roughly 23.7% of the bloc’s GDP and home to 17.6% of its population (about 46.2 million people). Its economic trajectory over the past two decades has been characterized by alternating periods of growth and crisis, shaped by macroeconomic instability, inflationary pressures, and recurring foreign exchange constraints. Between 2000 and 2021, the country’s population grew at an average annual rate of about 1%, slowing to 0.94% in 2022 and projected to decline to 0.57% by 2030 (World Bank, 2024). While its industrial and service sectors remain important, agriculture and agroindustry are at the heart of Argentina’s export engine.

The agricultural sector contributes about 6.9% of GDP but generates between 50% and 60% of total foreign currency earnings. The production base is heavily export oriented, with soybeans and soybean meal at the forefront, followed by maize, wheat, and beef. Brazil, China, and the European Union are key export destinations. The fertile Pampas region is the epicenter of production, hosting large, mechanized farms with high levels of technology adoption.

Land Use and Production Patterns

Argentina’s land use reflects a strong concentration in the Pampas, where extensive adoption of no-till farming and genetically modified crop varieties has transformed productivity since the 1990s. Soybeans have expanded to dominate rotations, sometimes displacing wheat and maize. Livestock production, once a primary land use in the Pampas, has shifted increasingly to feedlot systems or moved to more marginal areas. In northern and western regions, land conversion for agriculture has accelerated, raising environmental concerns over deforestation and biodiversity loss.

Organizational Characteristics

The production structure is dominated by large commercial operations, often organized as it called “sociedades anónimas” (corporations) or “pools de siembra” (investment groups), which lease significant tracts of land. Leasing arrangements can cover up to 60% of cultivated land in some areas, offering

flexibility but sometimes discouraging long-term investments in soil health. Family farms are concentrated in regional economies producing horticultural crops, fruits, and dairy for domestic markets.

Policy Context and Constraints

Agricultural policy has been a source of tension between the sector and government. Export taxes (33% for soybeans, 12% for maize and wheat) and multiple exchange rate systems have reduced farmgate prices and discouraged investment. Chronic inflation erodes profitability, while limited access to affordable credit restricts modernization and expansion. Infrastructure gaps, especially in transport, increase logistics costs, further reducing competitiveness. The sector also faces recurring droughts, particularly in the Pampas and northwestern regions, which cause sharp production swings and significant export losses.

Role in Mercosur

Within the bloc, Argentina's strengths lie in its ability to supply high-quality grains and oilseeds and maintain a globally competitive beef sector. Its processing capacity in the soybean complex adds significant value within regional supply chains. However, to fully capitalize on its role in Mercosur's collective competitiveness, Argentina will need to stabilize macroeconomic conditions, invest in infrastructure, and adopt more predictable agricultural policies that encourage investment in productivity and sustainability.

Brazil

Brazil is the largest economy in Mercosur, accounting for approximately 72% of the bloc's GDP and close to 79% of its population (World Bank, 2025). With more than 210 million inhabitants (2024), it wields significant influence over the region's economic trajectory. Brazil's agricultural sector is both a domestic economic driver and a global export powerhouse. Agriculture and agribusiness together account for roughly 24% of GDP and around 45% of merchandise exports, underscoring their strategic importance in the national economy.

The country's agricultural portfolio is vast and diverse. Brazil is the world's largest exporter of soybeans, beef, and coffee, and ranks among the leading global suppliers of maize, poultry, and sugar. This diversified export base has given Brazil resilience against commodity specific shocks and positioned it as a central player in global agrifood markets.

Land Use and Production Patterns

Brazil's agricultural geography is defined by vast pasturelands in the Centre West and North, intensive cropping in the South and Southeast, and frontier expansion in the Cerrado and parts of the Amazon basin. The Cerrado, once considered unsuitable for farming, has been transformed into a major agricultural region through decades of targeted research and technological innovation. Key crops include soybeans, maize, cotton, and sugarcane, while pasturelands support the world's largest commercial cattle herd.

Expansion in the Cerrado and other frontier areas has been accompanied by environmental concerns, particularly deforestation and biodiversity loss. However, Brazil has also emerged as a leader in sustainable intensification, no-till farming, bioinputs and integrated crop-livestock forest systems. These practices have increased productivity while reducing pressure to clear new land, aligning production with environmental commitments.

Organizational Characteristics

Brazil's farming structure is dualistic. On one hand, there are more than four million family farms (mostly smaller than 100 hectares) that supply a large share of food for domestic consumption. On the other, there are large scale, highly capitalized agribusinesses operating thousands of hectares, often integrated into sophisticated supply chains and export networks. The agribusiness sector is supported by strong producer organizations, commodity associations, and cooperative networks that facilitate market access, technology adoption, and policy advocacy.

Policy Context and Constraints

Agricultural development in Brazil has been strongly influenced by public investment in agricultural research, notably through the Brazilian Agricultural Research Corporation (EMBRAPA). Policy frameworks have supported rural credit access, subsidized insurance, and infrastructure investment, though challenges remain. Transportation and logistics costs, particularly for grain exports from inland regions, are high due to structural deficit in storage capacity, limited port capacity and inadequate road and rail infrastructure. Environmental governance is complex, with federal and state level enforcement varying widely. Climate variability, especially irregular rainfall and occasional severe droughts, also affects yields and export availability.

Role in Mercosur

Brazil's scale, diversity, and technological capacity make it the cornerstone of Mercosur's collective competitiveness. It anchors the bloc's ability to supply large volumes of agricultural commodities reliably to global markets while also setting regional benchmarks for innovation and sustainability. As global demand evolves, with increasing attention to deforestation free supply chains, Brazil's capacity to align productivity growth with environmental commitments will influence the bloc's market access and reputation.

Paraguay

Paraguay's economy is among the most agriculture-dependent within Mercosur. The sector accounts for roughly 11.3% of GDP and an estimated 70% of total exports, making it the principal driver of growth, foreign exchange earnings, and rural livelihoods. With a population of about 7.4 million, Paraguay has a relatively small domestic market, so most of its agricultural production is oriented toward exports.

The country's comparative advantage lies in its low production costs, favorable tax regime, and openness to foreign investment. Over the past two decades, Paraguay has emerged as a significant global player in soybeans and beef, ranking among the world's top exporters of both commodities. This export orientation has been supported by steady improvements in productivity and the expansion of cultivated land, particularly for soybeans.

Land Use and Production Patterns

Agricultural expansion has been most notable in the eastern region, where soybean cultivation is dominant. The total soybean area has more than tripled since 2000, driven by strong global demand and competitive domestic production costs. Double cropping systems, typically soybeans followed by maize, have become increasingly common, boosting land productivity. Livestock production, concentrated in the Chaco region, has also expanded, with beef exports growing steadily in both volume and value.

However, this expansion has come with environmental tradeoffs. Deforestation, particularly in the Chaco region, has accelerated in recent years as pasturelands are developed for cattle ranching. The eastern region has also experienced forest loss linked to soybean expansion. These trends have raised sustainability concerns, especially in environmentally sensitive markets.

Organizational Characteristics

The structure of Paraguayan agriculture is highly polarized. Large commercial farms, many owned or operated by foreign investors, dominate export-oriented soybean and beef production. In contrast, 64% of farms are classified as smallholdings of less than 10 hectares. These small farms, often engaged in mixed crop-livestock systems, produce primarily for domestic markets and face significant constraints in accessing credit, technology, and markets.

Despite these structural disparities, Paraguay has seen growth in its agro-industrial capacity. Soybean crushing and beef processing facilities have expanded, adding value domestically and improving export competitiveness. The government has also pursued policies to attract foreign investment, particularly in agroindustry and logistics infrastructure.

Policy Context and Constraints

While Paraguay's tax regime and investment climate are favorable, infrastructure remains a major bottleneck. Many production areas are far from export hubs, leading to high transportation costs and delays. Port facilities along the Paraguay-Paraná waterway are crucial for soybean and grain exports, but river navigability can be affected by drought and sedimentation. Climate variability, especially periodic droughts linked to El Niño–Southern Oscillation (ENSO) events, can cause sharp production declines.

Role in Mercosur

Paraguay contributes cost competitive soybeans and beef to Mercosur's export profile, strengthening the bloc's competitiveness in price sensitive global markets. However, its heavy reliance on a narrow range of commodities increases vulnerability to price and climate shocks. Strengthening sustainability standards, diversifying production, and investing in value added processing will be essential for Paraguay to enhance its role in Mercosur's collective competitiveness and resilience.

Uruguay

Uruguay combines macroeconomic stability, strong institutions, and an export oriented agricultural sector that forms a cornerstone of its economy. Agriculture accounts for around 5.6% of GDP but generates approximately 66% of the country's total export earnings. With a relatively small population of about 3.5 million, domestic demand for agricultural products is limited, meaning most production is geared toward foreign markets.

Uruguay's export basket is dominated by beef, soybeans, rice, and dairy products. It is globally recognized for its pasture-based livestock systems, high sanitary standards, and full traceability in its beef supply chain, a feature that distinguishes it in premium markets such as the European Union, North America, and parts of Asia. This emphasis on quality and transparency has allowed Uruguay to secure and maintain access to demanding markets despite its smaller scale compared to other Mercosur members.

Land Use and Production Patterns

Pastureland dominates Uruguay's agricultural landscape, with livestock grazing systems covering much of the country's territory. Cattle ranching is deeply embedded in the rural economy and culture, and Uruguay consistently ranks among the top beef exporters relative to its population size. Cropping areas are smaller but strategically important, with soybeans as the leading crop. Soybean cultivation expanded rapidly during the 2000s, often integrated into rotations with wheat and barley. Rice production is another key subsector, with Uruguay among the top global exporters of high-quality rice.

Organizational Characteristics

The agricultural sector features a mix of medium-sized commercial farms and smaller family run operations. Livestock farms tend to be extensive, and family managed, while cropping enterprises, especially soybean farms, often operate under formal business arrangements, sometimes involving leasing or partnerships. Uruguay's cooperative movement is relatively strong, particularly in the dairy and rice sectors, where producer organizations play a critical role in processing and marketing.

Policy Context and Constraints

Uruguay's policy framework has been relatively stable, with consistent support for trade liberalization, sanitary and phytosanitary standards, and rural development. Public investment in agricultural research and extension services has supported productivity gains, particularly in pasture management and sustainable farming practices. However, climate risks, especially recurrent droughts, pose serious challenges to both crop and livestock production. Infrastructure quality is generally good compared to some regional peers, but continued investment in port facilities and logistics is necessary to maintain export competitiveness.

Role in Mercosur

Within Mercosur, Uruguay contributes a reputation for high-quality, traceable, and sustainably produced agricultural goods. This premium branding complements Brazil's scale, Argentina's processing capacity, and Paraguay's cost competitiveness. Uruguay's approach reinforces Mercosur's credibility in sustainability conscious markets and helps the bloc diversify its market presence beyond bulk commodity exports.

Comparative synthesis

Despite notable differences in scale, structure, and specialization, Argentina, Brazil, Paraguay, and Uruguay share several structural characteristics that define Mercosur's agricultural identity. All four economies exhibit a high degree of dependence on agricultural exports for foreign currency earnings and as a driver of rural employment. Agriculture is deeply integrated into global commodity markets, meaning that fluctuations in world prices and shifts in international demand have an immediate impact on national economies.

Another shared feature is vulnerability to climate variability, particularly drought. The ENSO has been a recurring driver of severe weather events in the region, with impacts on yields, livestock productivity, and export capacity. While all countries have implemented measures to adapt, the degree of resilience varies considerably, influenced by infrastructure quality, access to rural insurance, and investment in risk-management systems.

All four members face infrastructure challenges, particularly in transportation and logistics, that constrain competitiveness. While Brazil has made major investments in export corridors and port capacity, bottlenecks remain in inland transport networks. Argentina struggles with underinvestment in rural roads and

other infrastructure. Paraguay's dependence on the Paraguay–Paraná waterway exposes it to river level fluctuations, while Uruguay's infrastructure is relatively strong but still requires continuous upgrades to remain competitive in premium markets.

From an environmental perspective, each country is under increasing scrutiny to reduce land use change impacts and promote sustainable production. Brazil's deforestation rates in sensitive biomes have global visibility, Argentina's expansion of soy into fragile ecosystems has raised concerns, Paraguay faces criticism over Chaco deforestation, and Uruguay's challenge is to maintain environmental integrity while expanding exports.

Despite these shared vulnerabilities, Mercosur's members have complementary strengths:

- Brazil anchors the bloc's global competitiveness with unmatched production scale, product diversity, and technological leadership.
- Argentina brings high value grain and oilseed exports and a strong beef industry, supported by advanced processing capacity.
- Paraguay offers cost competitive soybean and beef exports, enabling the bloc to remain competitive in price-sensitive markets.
- Uruguay contributes premium, traceable, and sustainability certified products that strengthen Mercosur's image in environmentally conscious markets.

These complementarities allow Mercosur to present a diversified export portfolio that balances volume, value, and quality segments of the global market. When leveraged collectively, they offer a powerful competitive advantage, positioning the bloc not only as a bulk commodity supplier but also as a credible player in sustainable, high-quality agricultural trade.

Trade partner evolution

Over the past two decades, Mercosur's agricultural trade relationships have undergone significant transformation, driven by shifts in global demand, trade policy developments, and evolving sustainability requirements in key markets. The most profound change has been the emergence of China as the dominant external market for several of the bloc's core exports.

In the early 2000s, the European Union (EU) was Mercosur's primary export destination for high value agricultural products, particularly beef, soymeal, and specialty crops. However, China's rapid economic growth, urbanization, and rising incomes spurred a surge in demand for feed grains, oilseeds, and animal protein. By the mid-2010s, China had become the largest buyer of Brazilian and Uruguayan beef, the top importer of Argentine soymeal, and a major destination for Paraguayan soybeans. Today, China absorbs a substantial share of the bloc's soybean exports, over 60% in Brazil's case, and has a growing presence in beef and poultry markets.

While China's rise has brought lucrative opportunities, it has also increased market concentration risk. Price negotiations, sanitary requirements, and political factors in China have an outsized influence on Mercosur's export performance. This dynamic was illustrated during periods of Chinese import policy adjustments, when shifts in tariff rates or sanitary protocols had immediate repercussions for export volumes and prices.

The European Union remains a critical market for Mercosur, particularly for premium and niche products. Beef exports to the EU benefit from high unit values, thanks to the bloc's sanitary reputation and traceability systems, especially in Uruguay and selected Argentine and Brazilian suppliers. However, the EU's increasingly stringent environmental and sustainability regulations, such as deforestation free supply chain requirements, present both challenges and opportunities. Compliance will require enhanced monitoring, certification, and transparency across supply chains, but successful adaptation could reinforce Mercosur's competitive position in high value segments.

The Middle East and North Africa (MENA) region has emerged as a dynamic and growing market for Mercosur's cereals, meats, and sugar. Countries such as Egypt, Saudi Arabia, and the United Arab Emirates have diversified their sourcing strategies to include greater volumes from South America. This diversification is partly driven by food security concerns and partly by competitive pricing from Mercosur suppliers. The MENA region offers growth potential, particularly for halal certified meat, but will require targeted marketing and continued adaptation to cultural and religious standards.

Intra-Mercosur trade also plays a notable role, although it represents a smaller share of total exports compared to extra-regional flows. Argentina is a key wheat supplier to Brazil, while Brazil provides maize and poultry to its neighbors. Intra bloc trade has been facilitated by common external tariff structures and reduced internal trade barriers, but it is often overshadowed by each member's focus on extra-regional markets. Strengthening intra-Mercosur value chains (e.g. by integrating processing and logistics infrastructure) could enhance the bloc's resilience to global market shocks.

Overall, the evolution of trade partners underscores a dual imperative for Mercosur: maintain and deepen access to its dominant markets while actively diversifying to reduce concentration risks. This means continuing to serve China's massive demand while expanding in MENA, consolidating premium positions in the EU, and leveraging intraregional synergies to strengthen the bloc's collective competitiveness.

Current context as the foundation for the Outlook

Mercosur stands at a pivotal juncture in its agricultural and economic trajectory. As one of the world's largest suppliers of soybeans, beef, maize, sugar, coffee, and other commodities, the bloc has a well-established role in global food systems. However, evolving trade dynamics, mounting climate pressures, and heightened sustainability expectations are redefining the conditions for competitiveness. Over the next decade, Mercosur will face the dual challenge of sustaining its leadership in bulk commodity exports while moving further up the value chain and reinforcing its reputation as a sustainable and reliable supplier.

Climate change represents perhaps the most significant medium- to long-term risk to agricultural performance. Recurring droughts, often associated with the El Niño–Southern Oscillation, have already caused severe losses in yields and export capacity, particularly in Argentina, southern Brazil, and Paraguay. Reducing this vulnerability will require accelerating the adoption of climate-smart practices such as drought-tolerant crop varieties, improved pasture management, more efficient water use, and integrated crop-livestock-forest systems. Some progress is already visible: Brazil has advanced in sustainable intensification, while Uruguay's pasture-based beef production provides a model for climate-aligned value chains. Scaling such approaches across the bloc will be essential to protect productivity and maintain market access in the years ahead.

Export competitiveness will also depend increasingly on logistics performance. Brazil's grain exports from the Centre-West still face high transport costs due to their dependence on road networks, although recent

investments in northern export corridors and rail lines offer promise. Argentina's grain belt urgently needs modernization of road and rail links to ports, and Paraguay's heavy reliance on the Paraguay–Paraná waterway makes ensuring year-round navigability a priority. Uruguay's port infrastructure, among the most developed in the region, supports its presence in premium markets but will require continued capacity upgrades to handle projected trade growth. Coordinated regional investments, potentially implemented through Mercosur mechanisms, could reduce logistics costs and strengthen the bloc's bargaining power in international markets.

While China will remain an indispensable buyer for soy, meat, and other commodities, the risks of over-reliance on a single market is a challenge. Expanding exports to the Middle East and North Africa, Southeast Asia, and South Asia could mitigate vulnerability to demand shocks or policy shifts in any one destination. At the same time, increasing the share of value-added products within the export portfolio would enable the bloc to capture a greater portion of the agri-food value chain. Argentina's soybean-crushing industry already holds a leading position globally, and Brazil's poultry and pork sectors illustrate how downstream integration can generate higher export earnings. Extending these capabilities to Paraguay and Uruguay would add resilience while opening higher-value market niches.

Another determinant of future trade patterns will be the growing weight of environmental and social compliance requirements in major importing regions, particularly the European Union. Regulations on deforestation-free supply chains, carbon-footprint accounting, and labor-rights safeguards are becoming prerequisites for market access. Meeting these standards will entail adjustment costs, but it also presents an opportunity for Mercosur to position itself as a global benchmark for sustainable agricultural trade. Uruguay's advanced traceability systems and Brazil's leadership in integrated production systems are examples of models that could be replicated across the bloc. A coordinated approach to certification and sustainability branding could both safeguard access to demanding markets and strengthen Mercosur's competitive image worldwide.

In this context, the path forward for Mercosur lies in deepening its capacity to adapt and innovate while leveraging the complementarities of its member states. By coupling climate resilience with infrastructure modernization, diversifying markets while enhancing value-addition, and aligning sustainability practices with the highest global standards, the bloc can secure its role as a cornerstone of global food security and a leader in sustainable trade.

These structural strengths and vulnerabilities define the starting point for Mercosur's next chapter, where future competitiveness will depend on how effectively the bloc can adapt to shifting global conditions, seize emerging opportunities, and align its agricultural transformation with long-term sustainability goals.

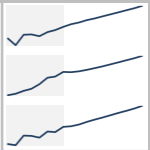
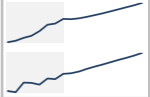

ABPU OUTLOOK: 10 YEARS AHEAD

Overview

Table 1 presents the projections for the reference scenario (baseline) for cereals and oilseeds, aggregated for ABPU. Production is expected to increase from an estimated 451 million tons in 2023/2024 to 569 million tons in 2033/2034, representing a 26.3% growth over the ten-year period (119 million tons), with an average annual growth rate of 2.3%. Most of the additional production will be allocated to exports, either as unprocessed grain or as processed oilseed products (oil and meals), contributing 74 million tons to total exports, which are projected to rise from 281 to 355 million tons.

The harvested area for these crops is expected to expand from 114 million hectares to 129 million hectares, adding 14 million hectares over the period—an average annual growth rate of 1.3% (Table 1). However, it is important to note that these numbers refer to the simple sum of planted areas across different crops within the bloc's countries, potentially leading to double counting of certain areas used for double or triple cropping. This simple sum may, therefore, overestimate the expansion of new land.

Table 1. ABPU’s Cereals and Oilseeds baseline projections (Mt or M ha)

	2023 / 2024	2028 / 2029	2033 / 2034	Δ% 10-years	Δ% annual	
Production	451	510	569	26.3%	2.3%	
Harvested Area	114	119	129	12.3%	1.3%	
Exports	281	314	355	26.3%	2.5%	

Source: Mercosur baseline projections. Exports include meals and oils. Δ% annual²

Harvested area

Regarding the allocation of this area expansion, 39% would be for grains (5.4 million ha), and 61% for oilseeds (8.7 million ha). Given the initial distribution, this implies a similar growth rate of just over 12% for both groups over the next decade (Table 2).











Among grains, corn is expected to see the largest expansion, increasing by 3.1 million hectares (10.6%) from 29.5 to 32.7 million hectares. Wheat follows, with an additional 1.9 million hectares, expanding from 9.6 to 11.5 million hectares.

Among oilseeds, soybeans are projected to expand by 8.5 million hectares, growing at an average annual rate of 1.4%, from 67.5 to 76 million hectares. Sunflower cultivation is also expected to increase, though on a much smaller scale, as production remains largely concentrated in Argentina.

Overall, the three main crops—corn, soybeans, and wheat—are projected to slightly increase their share of harvested area, rising from 93.2% in 2023/2024 to 93.5% in 2033/2034.

² The annual growth rate (Δ% annual) is calculated using the least squares growth rate, a method that estimates the average yearly rate of change by fitting to a constant growth rate model over the entire period. This approach provides a smoothed growth rate that accounts for variability across years and reflects the underlying long-term trend.

Table 2. Mercosur - Harvested Area (Mh)

	2023 / 2024	2028 / 2029	2033 / 2034	Δ% 10- year	Δ% annual	
Grains	45.2	47.5	50.6	12.1%	1.2%	
Rice	2.0	2.1	1.9	-5.2%	-1.0%	
Wheat	9.6	10.9	11.5	20.0%	1.4%	
Corn	29.6	30.5	32.7	10.6%	1.3%	
Barley	1.5	1.5	1.6	6.6%	0.6%	
Sorghum	2.5	2.6	2.9	16.6%	1.6%	
Oilseeds	69.3	71.9	78.0	12.5%	1.3%	
Soybean	67.5	69.9	76.0	12.7%	1.4%	
Sunflower	1.9	2.0	2.0	6.3%	0.2%	
Total	114.5	119.4	128.6	12.3%	1.3%	

Source: Mercosur baseline projections

Country analysis

Taking everything into account, the ABPU is projected to experience significant growth in cereal and oilseed production, harvested area, and exports over the next decade. Brazil is expected to remain the dominant producer, followed by Argentina, while Paraguay and Uruguay continue to play important roles as reliable agricultural suppliers.

Total cereal and oilseed production in Argentina is set to increase from 126 million tons in 2023/24 to 148 million tons in 2033/34, reflecting an 18.2% growth over ten years (or 1.5% as an annual average rate). The rate of expansion in harvested area is only one-third that of production (0.5% vs. 1.5%), indicating that growth is driven primarily by productivity gains (Table 3).

Brazil, the Mercosur largest producer, is expected to see its output rise from 299 million tons to 389 million tons, marking a 29.9% increase over ten years (2.6% per year). This growth is supported by a 15.2% expansion in the harvested area (1.6% annually), though productivity improvements will still be the main driver (Table 3).

Paraguay will also witness positive trends. Its production is projected to grow 26.2% (2.5% annually), reaching 22.3 million tons by 2033/34, the second largest growth rate after that of Brazil. This performance will be partly explained by a 9.3% expansion of harvested area. (Table 3)

Uruguay follows with an estimated 19.4% growth (1.8% annually), reaching 9.7 million tons (Table 32), positioning the country as the third top expansion rate, ahead of Argentina. The harvested area expansion is also moderate, about 7.9% over the decade, or (0.6%) annual.

It is interesting to note that harvested area expansion does not correspond to an increase in total agricultural land. This is the case, for example, of wheat and barley, which can be planted over soybean during a single season, or even corn, which in Brazil is increasingly grown as a second or third crop.

Overall, the key drivers of growth in the Mercosur region revolve around productivity gains -where Brazil's expanding its position-, trade competitiveness, and sustainable land use. The moderate increase in harvested area across Argentina and Uruguay indicates that production growth will primarily be driven by

higher yields and technological advancements rather than land expansion. Brazil will continue to be the largest cereal and oilseed producer in the region, accounting for nearly 60% of Mercosur’s total output, with wheat and corn production expected to experience the highest growth rates. Meanwhile, Paraguay and Uruguay will reinforce their positions as reliable global suppliers by capitalizing on their agricultural advantages, with Paraguay maintaining a crucial role in soybean and corn exports. In terms of sustainability and land use, Brazil's corn expansion will be almost entirely attributed to second and third cropping seasons, thereby minimizing the need for additional agricultural land and reducing environmental pressures. Driven by productivity gains and sustainable practices, ABPU is set for significant agricultural growth without major land expansion

The region’s export outlook is positive, with all countries expected to increase their export volumes. Argentina's exports will grow by 21.0% over ten years (1.6% annually), from 86.9 million tons to 105.2 million tons, including seeds, oils and meals. Brazil, the regional leader in exports, is expected to increase shipments by 30.4% (3.0% annually), reaching 227 million tons by 2033/34. Paraguay and Uruguay will also see export gains of 13.5% (1.9% annually) and 13.7% (1.2% annually), respectively (**Table 3**).

Table 3. Production, harvested area, and exports for Mercosur countries (Mt, 10-year and annual growth rates)

	2023 / 2024	2028 / 2029	2033 / 2034	Δ% 10- years	Δ% annual	
Argentina						
Production	125.5	138.3	148.4	18.2%	1.5%	
Harvested Area	33.3	34.0	35.5	6.6%	0.5%	
Exports	86.9	98.1	105.2	21.1%	1.6%	
Brazil						
Production	299.3	342.9	388.8	29.9%	2.6%	
Harvested Area	74.0	78.0	85.3	15.2%	1.6%	
Exports	174.1	195.0	227.0	30.4%	3.0%	
Paraguay						
Production	17.7	19.6	22.3	26.2%	2.5%	
Harvested Area	5.1	5.2	5.6	9.3%	1.0%	
Exports	14.5	14.7	16.5	13.5%	1.9%	
Uruguay						
Production	8.1	8.8	9.7	19.4%	1.8%	
Harvested Area	2.1	2.2	2.3	7.9%	0.6%	
Exports	5.9	6.4	6.7	13.7%	1.2%	

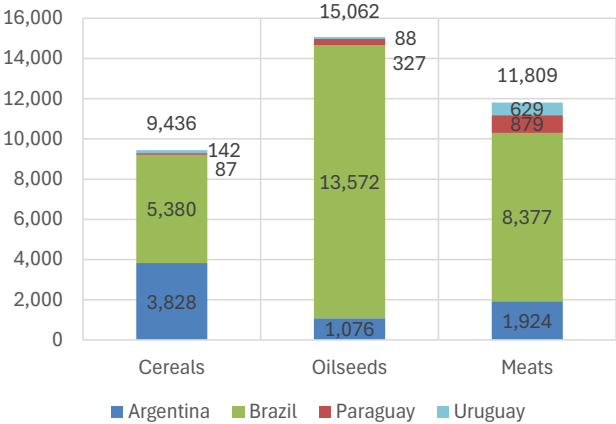
Notes: 2023/24 is data, 2033/34 are 10 years a head projections. Source: Mercosur baseline projections

Agricultural exports

Figure 4 illustrates the projected export increases of each ABPU countries in Cereals, Oilseeds, and Meats between 2023/2024 compared to the previous period, measured in million USD at 2023 prices. Brazil leads in all three sectors, particularly in Oilseeds, where its export increase reaches 13,572 million USD, significantly higher than Argentina’s 1,076 million USD and the contributions of Paraguay (88 million USD) and Uruguay (327 million USD). The total Oilseeds export increase for the region is 15,062 million USD, making it the highest among the three categories.

In the Cereals sector, the total export increase is 9,436 million USD, with Brazil (5,380 million USD) and Argentina (3,828 million USD) dominating the growth, followed by Paraguay (142 million USD) and Uruguay (87 million USD).

Figure 4. ABPU export increases in 2033/2034 vs. 2023/2024 (Million USD)



Source: Mercosur baseline projections

Meanwhile, Meats show a total increase of 11,809 million USD, with Brazil again taking the lead at 8,377 million USD, followed by Argentina (1,924 million USD). Paraguay (879 million USD) and Uruguay (629 million USD) play more notable roles in this category compared to their contributions in Oilseeds and Cereals.

Overall, Brazil accounts for the largest share of export increases in all three categories, reflecting its dominant position in agricultural trade among ABPU countries. Argentina consistently follows as the second-largest contributor, particularly in Cereals and Meats. Paraguay and Uruguay contribute smaller but still significant amounts, especially in the Meat sector. This pattern suggests that while Brazil and Argentina drive the bulk of export growth, Paraguay and Uruguay continue to expand their roles in regional agricultural trade.

Cereals

Grain production and trade in Mercosur countries are evolving, shaped by domestic consumption patterns, export potential, and sectoral transformations. Corn production and exports are the most dynamic across the region, while wheat remains a strategic crop, particularly for Argentina and Brazil. Meanwhile, Brazil’s expanding biofuel sector is driving a shift in corn demand, further influencing market dynamics.

Wheat: Argentina as the leading producer, Brazil's rising output

Over the next 10 years, production is expected to grow by 38.5%, with an average annual increase of 2.5%. In absolute terms, this translates to an additional 9.8 million tons, reaching 35.5 million Tn by the end of the projected period. Meanwhile, local uses would increase at an average rate of 1.7%, up to 24 million tons. Thus, the region will be demanding an additional 3,8 Mt of wheat (**Table 4**).

This higher growth in production than in local demand means larger net exports to the rest of the world, which will increase by 3.7 Mt. Mercosur’s wheat exports are projected to grow to 17 million tons, about

26% in the next decade, while total imports are expected to remain stable at around 6 million tons, which correspond mostly to intra-bloc trade from Argentina to Brazil.

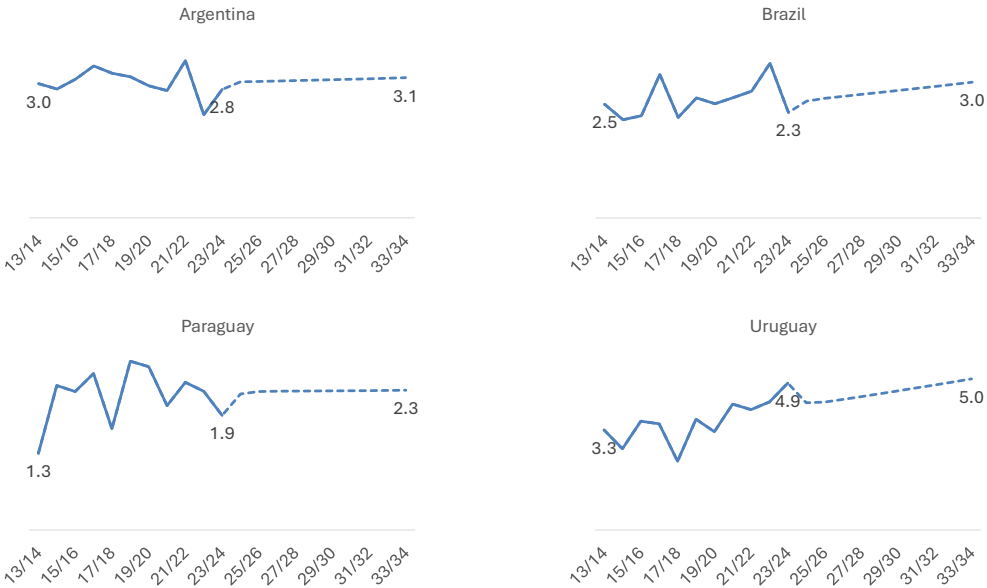
Table 4. Baseline projections of ABPU wheat crop (thousand tons)

	2023 / 2024	2028 / 2029	2033 / 2034	Δ% 10-year	Δ% annual	
Wheat						
Production	25,653	32,382	35,531	38.5%	2.5%	
Consumption	20,184	22,342	24,035	19.1%	1.7%	
Net exports	7,655	9,876	11,392	48.8%	3.5%	
Exports	13,675	16,017	17,291	26.4%	2.0%	
Imports	6,020	6,141	5,899	-2.0%	-0.5%	

Source: Mercosur baseline projections

In the baseline scenario, yield recovery is projected to begin in the 2023/24 season, following the declines caused by extreme weather events that primarily affected Argentina in 2022/2023 (**Figure 5**). Yields are expected to increase from 2.8 t/ha to 3.1 t/ha in Argentina, an increase of 10%, yet still far from the record of 3.5 observed in 21/22. Brazil yield growth is projected to be of 30% in 10 years. However, this percentage is biased given that the base number has been affected by floods, which caused a drop in yields from a record of 3.4 in 22/23 to 2.3 in 23/24. Paraguay wheat productivity has displayed volatility in the recent decade and is expected to have a rather flat trend. In the case of Uruguay, the yield growth is expected to continue, reaching around 5 ton per ha by the 2033/2034.

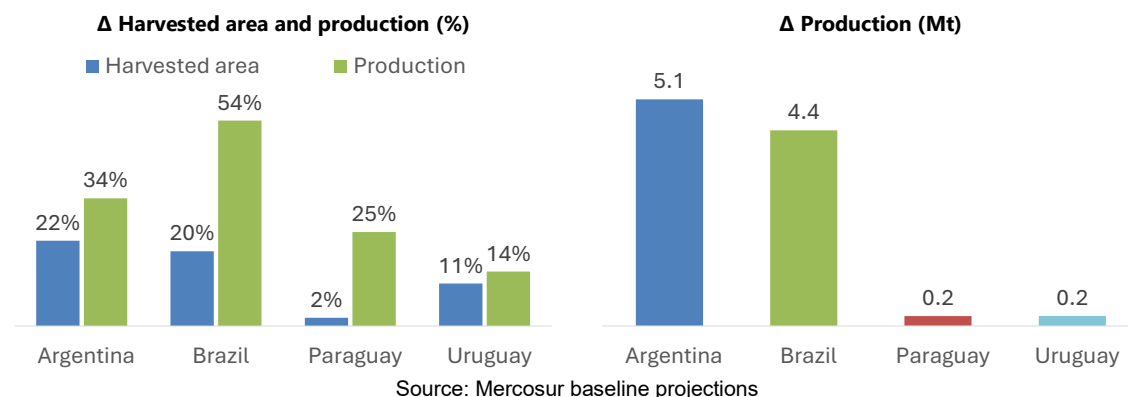
Figure 5. Baseline projections for wheat yield in ABPU (t/ha)



Source: Mercosur baseline projections

Figure 6 show the expected changes over the next decade for wheat area and production. Argentina is set to remain Mercosur’s top wheat producer, with output rising 34% from 15.1 million tons in 2023/24 to 20.16 million tons in 2033/34. Wheat exports are projected to grow by 32%, further strengthening Argentina’s role as the region’s primary supplier and a key global exporter.

Figure 6. Wheat production and harvested area change (2033/2034 vs. 2023/2024)



In contrast, Brazil’s wheat production is projected to grow significantly by 54%, accounting for the yield growth explained by trend and by the recovery from extreme weather events in the base season. Production will reach 12.47 million tons, bolstering domestic supply while exports rise at a slower pace (23.4%). However, this expansion presents challenges, particularly regarding crop quality. Although yields have improved, wheat quality has declined, prompting domestic processors to favor higher-quality imports and increasing exports of lower-quality wheat (USDA, 2024f).

In Paraguay, wheat production is expected to increase by 25% to 1.1 million tons, recovering from the low yields observed in 2023/24. Under this baseline scenario, Uruguay’s wheat output is projected to grow by 14%, reaching 1.8 million tons. Together, Paraguay and Uruguay will contribute an additional 400 thousand tons by 2033/34. Notably, Paraguay’s wheat exports are set to decline by 29.7%, reflecting a sharp rise in domestic consumption (see **Error! Reference source not found.**).

Corn: Strong growth in production, exports and biofuel demand

The projected increase in corn production within the ABPU region under the baseline scenario is the highest among all crops, as previously noted. Production is expected to grow from 174 million tons in the 2023/24 season to 232.7 million tons, reflecting a 33.4% increase over 10 years, or an average annual growth rate of 2.9% (**Table 5**). This expansion is primarily driven by Brazil, followed by Argentina (**Figure 8**).

Table 5. Baseline projections of ABPU’s corn crop (thousand tons)

	2023 / 2024	2028 / 2029	2033 / 2034	Δ% 10-year	Δ% annual	
Corn						
Production	174,500	204,415	232,722	33.4%	2.9%	
Exports	83,500	96,557	114,658	37.3%	3.7%	
Local use						
Final consumption	11,787	12,580	12,813	8.7%	0.8%	
Animal consumption	69,310	73,261	76,390	10.2%	1.0%	
Biofuel	18,463	23,053	30,030	62.6%	5.3%	

Source: Mercosur baseline projections

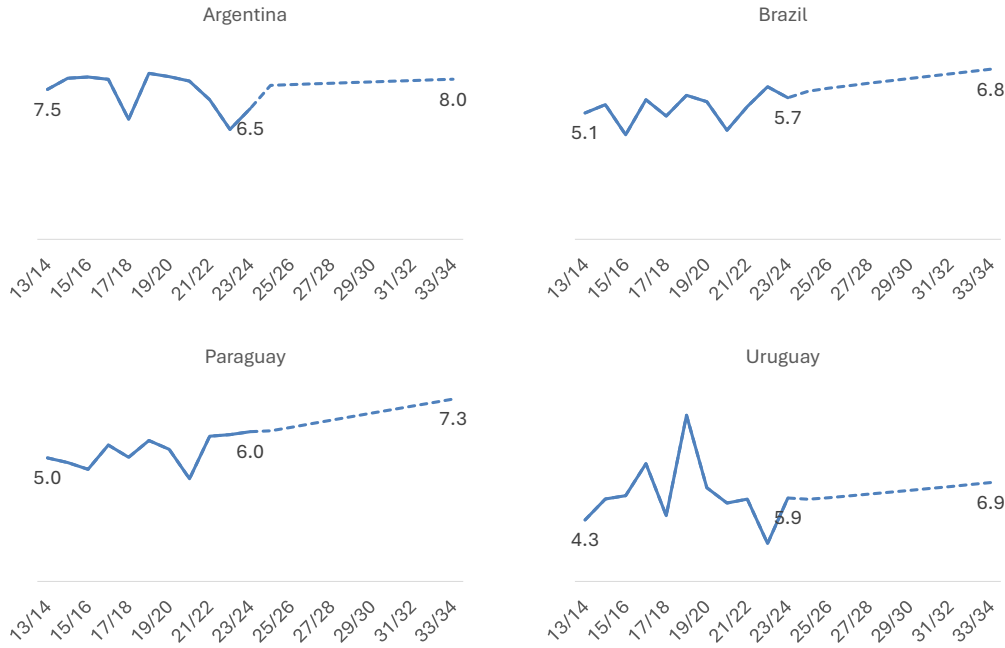
Baseline projects growth across all uses of corn. In percentage terms, the most significant increase is in ethanol production, which is expected to rise by 62.6% over the next 10 years. The second largest growth

will be in its use as animal feed, with an estimated increase of approximately 7 million tons (10.2%) over the period, representing an average annual growth of 1%.

Corn exports are projected to grow from 83.5 million tons to 114.7 million tons, marking a 37.3% increase over the decade, with an average annual growth rate of 3.7%.

Following the yields observed during the 2022/23 season, the baseline scenario anticipates a recovery and growth in corn yields across the three major producing countries. In Argentina, yields are expected to recover sharply from 6.5 t/ha to 8.0 t/ha within just two seasons, stabilizing at that level until 2033/34. In Brazil, yields are projected to increase from 5.7 t/ha to 7.3 t/ha over the next decade, with Paraguayan corn yields following a similar trajectory. Among Mercosur countries, Argentina is expected to maintain the highest corn yields throughout the period (Figure 7).

Figure 7. Baseline projections for corn yield in ABPU (t/ha)



Source: Mercosur baseline projections

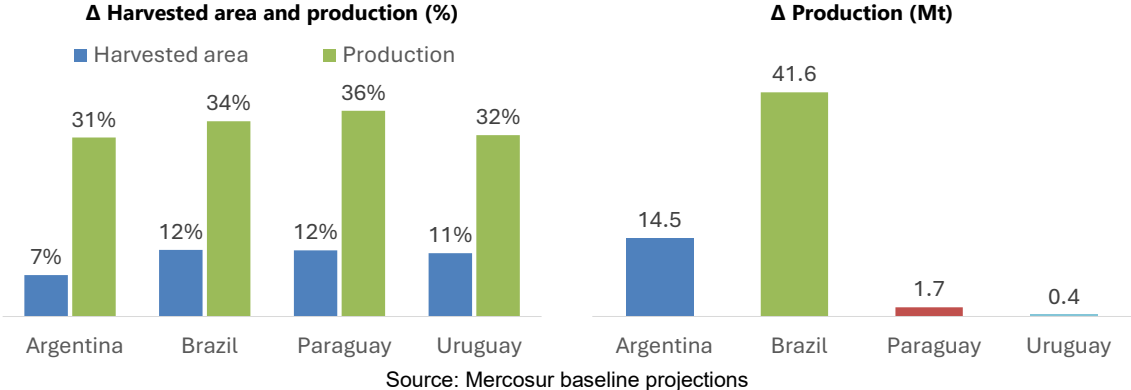
Corn remains the most important grain in Mercosur, with Brazil leading production, followed by Argentina, Paraguay, and Uruguay. Brazil’s production is expected to surge 34.1%, reaching 164 million tons, reflecting its strategic expansion in corn cultivation, partly replacing soybean fields. The most significant transformation in Brazil’s corn sector is the rapid growth of ethanol production, which will absorb an additional 10 million tons. Biofuel usage is set to rise by 67.6%—the fastest growth rate among agricultural-based energy sources in the region—solidifying Brazil’s role as a leader in renewable energy from agriculture.

However, a significant portion of this expansion does not correspond to an increase in total agricultural land, as nearly 100% of corn is grown as a second or third crop (a third-season corn crop accounts for approximately 2% of corn production) (USDA, 2014f).

Argentina follows with a 31.2% increase in corn production, reaching 61 million tons, with the majority allocated for export. Corn exports are projected to rise by 38.2%, further solidifying Argentina’s role as a

key global supplier. A large part of this growth, however, is explained by a recovery after planted area fell in 2023/2024, in response to a surge of the corn stunt disease (Figure 8).

Figure 8. Corn production and Harvested Area change (2033/2034 vs. 2023/2024)



Paraguay exhibits a 35.9% increase in production, reaching 6.52 million tons—one of the highest growth rates in Mercosur. However, its export potential is expected to decline slightly (-1.5%), driven by rising domestic demand, particularly in the livestock feed sector. Uruguay follows a similar trend, with production growing by 31.7%, but exports are projected to drop sharply by 47.6%, reflecting a stronger shift toward domestic consumption.

Sorghum and Barley

Baseline projections indicate production growth for barley and sorghum. ABPU barley output is expected to rise from 6.2 million tons to 7.2 million tons over the next decade, representing a 16.8% increase, with an average annual growth rate of 1.5%. Sorghum output is projected to increase from 8.6 to 9.9 million tons, a 15.8% increase (Table 6).

Table 6. Baseline projections of barley, sorghum and rice in APBU (thousands tons)

	2023 / 2024	2028 / 2029	2033 / 2034	Δ% 10-year	Δ% annual	
Barley						
Production	6,155	6,560	7,192	16.8%	1.5%	
Consumption	3,080	3,451	3,805	23.5%	2.1%	
Exports	3,725	3,784	4,200	12.8%	1.3%	
Sorghum						
Production	8,597	8,550	9,958	15.8%	1.9%	
Consumption	6,898	6,901	8,268	19.9%	2.2%	
Exports	1,665	1,682	1,708	2.6%	0.4%	
Rice						
Production	14,800	16,765	16,331	10.3%	0.4%	
Consumption	11,877	12,409	12,147	2.3%	0.1%	
Exports	4,808	5,117	5,452	13.4%	1.0%	

Source: Mercosur baseline projections

ABPU consumption of both barley and sorghum is expected to increase significantly, outpacing population growth, driven by higher feed use for both crops and increased malting in the case of barley. Exports are also projected to rise.

Brazil's sorghum production is expected to grow by 32.3%, positioning it as the third-largest global producer (**Table 7**). This expansion is driven by low production costs and resilience to climate stress, making sorghum a viable alternative to corn in feed and ethanol production. However, while exports are increasing, they will remain limited. In contrast, Argentina is experiencing a 6.9% decline in sorghum output, reflecting a shift in priorities within grain cultivation.

Barley production remains relatively stable, with Argentina and Uruguay leading the sector. Uruguay, with a 34.2% increase, emerges as a key barley producer in Mercosur, driven by the growing demand for barley in both malting and livestock feed.

Table 7. Baseline projections of barley and sorghum in APBU, by country (thousands tons)

	Argentina					Brazil				
	2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual		2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual	
Sorghum										
Production	3,500	3,258	-6.9%	-0.4%		4,909	6,495	32.3%	3.3%	
Consumption	1,950	2,203	13.0%	1.1%		4,800	5,873	22.4%	2.6%	
Exports	1,500	1,044	-30.4%	-3.1%		125	639	411.1%	12.6%	
Barley										
Production	5,000	5,674	13.5%	1.3%		455	579	27.3%	2.5%	
Consumption	1,580	1,818	15.1%	1.4%		1,050	1,388	32.1%	3.0%	
Exports	3,400	3,845	13.1%	1.2%		0	0	0.0%	0.0%	
	Paraguay					Uruguay				
	2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual		2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual	
Sorghum										
Production	108	131	21.5%	2.0%		80	74	-7.5%	-0.6%	
Consumption	73	115	57.2%	4.1%		75	77	2.0%	-0.3%	
Exports	35	16	-53.0%	-7.4%		5	8	64.7%	4.1%	
Barley										
Production	0	0	0.0%	0.0%		700	939	34.2%	2.6%	
Consumption	0	0	0.0%	0.0%		450	600	33.3%	2.5%	
Exports	0	0	0.0%	0.0%		325	355	9.2%	2.0%	

Source: Mercosur baseline projections

Rice: Paraguay and Uruguay emerging as key exporters

Regarding rice, production is expected to grow from 14.8 to 16.3 million tons, a 10.3% increase, with an average annual growth rate of 0.4%. Rice consumption in the bloc is expected to grow only marginally, meaning that most of the additional production will be available for export (**Table 6**).

Rice production in Brazil remains relatively stable, with a modest 6.6% increase, while Argentina experiences a decline of 11.3% (**Table 8**). Notably, Paraguay and Uruguay demonstrate the highest growth rates, with increases of 29.3% and 41.6%, respectively. This trend highlights their expanding roles as exporters, with Paraguayan exports rising by 31.7% and Uruguayan exports surging by 44.6%

Table 8. Baseline projections of rice in APBU, by country (thousands tons)

	Argentina					Brazil				
	2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual		2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual	
Rice										
Production	1,323	1,174	-11.3%	-1.1%		10,769	11,485	6.6%	0.0%	
Consumption	731	879	20.3%	1.7%		11,000	11,114	1.0%	0.0%	
Exports	577	303	-47.4%	-6.1%		1,692	1,636	-3.3%	0.1%	

	Paraguay					Uruguay				
	2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual		2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual	
Rice										
Production	1,323	1,711	29.3%	2.7%		1,385	1,961	41.6%	2.1%	
Consumption	69	88	26.5%	1.9%		77	66	-13.8%	-1.4%	
Exports	1,231	1,621	31.7%	3.0%		1,308	1,891	44.6%	2.3%	

Source: Mercosur baseline projections

Oilseeds

Soybean Complex: Brazil drives expansion, Argentina leads in value-added

Table 9 presents the baseline projections for the soybean complex in ABPU countries. Soybean production is expected to increase from 217 million tons to 263 million tons over the next decade, representing a total growth of 21.2% (46 Mt) and an average annual growth rate of 2%. While domestic processing is projected to expand by 13 Mt (13.6% over the period or 1.2% annually), the most significant absolute growth is in exports, which are expected to rise from 112 million tons to 146 million tons — a 30% increase.

A large share (45%) of soybeans produced are processed locally, both for domestic use of byproducts and exports. However, the growth rates for soybean oil and meal exports are lower than those for raw beans, increasing by 6.7% and 6.0%, respectively. In absolute terms, this translates to an additional 534 thousand tons of soybean oil and 3.1 million tons of soybean meal.

These figures reflect a significant increase in local use. Regarding soybean oil, the highest percentage increase is in biodiesel production, which is projected to grow by 28.2% over ten years, with an average annual increase of 2.1%. For soybean meals, while exports remain the primary destination, the most significant growth is animal feed use, projected to rise by 29.1%, driven by higher meat production and exports. This translates to an additional 6.8 million tons of soybean meals being allocated to animal feed within the region.

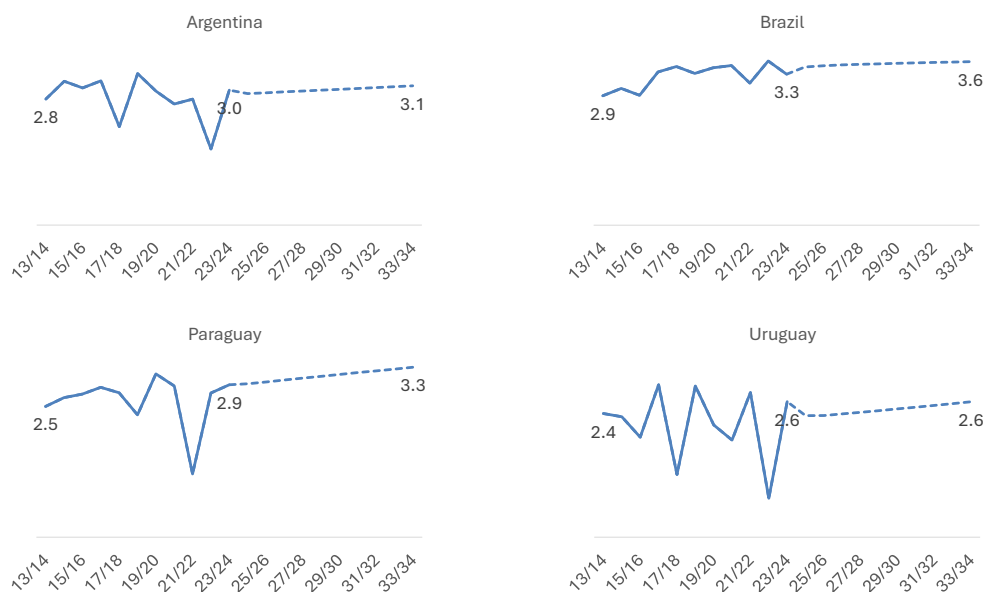
Table 9. Baseline projections ABPU's soybean complex products (thousands tons)

	2023 / 2024	2028 / 2029	2033 / 2034	Δ% 10-year	Δ% annual	
Soybean						
Production	217,200	236,863	263,246	21.2%	2.0%	
Processing	98,100	104,930	111,401	13.6%	1.2%	
Exports	112,150	127,291	146,264	30.4%	2.8%	
Soybean oil						
Production	19,286	20,598	22,036	14.3%	1.3%	
Biofuel	6,211	7,324	7,965	28.2%	2.1%	
Exports	7,931	8,161	8,465	6.7%	0.8%	
Soybean meal						
Production	75,218	80,265	84,973	13.0%	1.1%	
Feed	23,436	26,840	30,252	29.1%	2.5%	
Exports	51,752	53,502	54,865	6.0%	0.5%	

Source: Mercosur baseline projections

Historical yields have fluctuated due to various factors such as climate conditions and agricultural practices, but a general upward trend is projected in the coming years. **Figure 9** presents the baseline projections for soybean yield (t/ha) in ABPU countries. These trends suggest continued productivity growth, albeit with country-specific variations. Brazil is expected to have the highest yield by the end of the period, widening the gap with Argentina. Paraguay is also projected to see significant growth, while Uruguay displays the most volatility, with a rather stable trend.

Figure 9. Baseline projections for soybean yield in ABPU (t/ha)

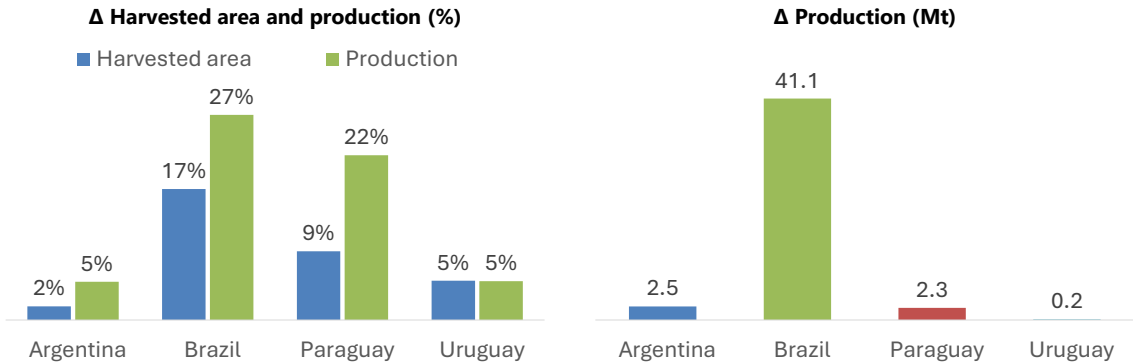


Source: Mercosur baseline projections

Figure 10 shows a comparison of soybean production changes between 2033/2034 and 2023/2024 for ABPU countries. Brazil stands out with the most significant growth, showing a 17% increase in harvested area and a 27% increase in production, translating to 41.1 Mt of additional production. Argentina has modest growth with 2% increase in harvested area but 5% in production (2.5 Mt). Paraguay shows 9%

growth in harvested area and 22% in production (2.3 Mt), while Uruguay has equal 5% increases in both metrics with 200 thousand tons production gain.

Figure 10. Soybean production and harvested area change (2033/2034 vs. 2023/2024)



Source: Mercosur baseline projections

Table 10 shows a comparison of soybean production changes from 2023/2024 to 2033/2034 for ABPU countries. Brazil is the dominant soybean producer among Mercosur countries and the world's leading producer and exporter, accounting for 40% of global production and 58% of total exports. Projections indicate a 26.9% production increase over the next decade, reaching 194 million tons, while exports will grow by 32.5% to surpass 128 million tons. This reinforces Brazil's position as the primary global supplier of soybeans, with increasing international demand driving expansion.

Argentina is the second-largest producer in Mercosur, oriented towards local soybean processing. With 80% of its soybeans crushed domestically, Argentina dominates the export of soybean meal and oil, reinforcing its role as a key supplier of value-added products. Over the next decade, soybean meal exports are expected to grow by 6.6%, reaching 30.7 million tons. Similarly, soybean oil exports are projected to increase by 7.6%, reaching 6.2 million tons, demonstrating Argentina's continued strength in the global soybean oil market.

Brazil, on the other hand, processes only 35% of its soybean production, prioritizing whole soybean exports. However, soybean processing is expected to grow by 15%, reaching 62.1 million tons, reflecting a gradual shift toward value-added products. Nevertheless, soybean oil exports from Brazil are projected to decline by 9.6%, indicating increased domestic use, particularly for biofuel production. This expansion in biofuel aligns with Brazil's strategic move to enhance its renewable energy industry, with soybean oil playing a key role in biodiesel production.

The expansion of Brazil's biodiesel industry is reshaping oilseed dynamics in Mercosur. The expected increase in soybean processing aligns with rising domestic demand for biodiesel, a trend that will reduce soybean oil exports while boosting internal consumption. By 2033, Brazil's biofuel sector will absorb over 6.1 million tons of soybean oil, a 32.2% increase from current levels. This represents a major shift in market dynamics, as more soybeans are allocated toward energy production rather than traditional food and feed markets.

Meanwhile, Paraguay's total soybean production is forecast to rise by 21.6%, reaching 12.7 million tons, reinforcing its role as a key player in the regional oilseed market. The country's soybean industry is undergoing significant transformation, with processing projected to increase by 44.2% to 5 million tons, approaching its current crushing capacity of 5.8 Mt, although exports will also grow by 11%. In Uruguay,

soybean production is expected to grow by 5.1%, reaching 3.3 Mt by the end of the period, with most of the expansion directed toward exports, which will rise by 7.9%.

Table 10. Baseline projections for soybean complex products in ABPU, by country (thousands tons)

	Argentina					Brazil				
	2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual		2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual	
Soybean										
Production	50,500	53,028	5.0%	0.4%		153,000	194,090	26.9%	2.5%	
Processing	40,500	44,128	9.0%	0.6%		54,000	62,121	15.0%	1.5%	
Exports	5,500	7,057	28.3%	0.4%		97,000	128,567	32.5%	3.0%	
Soybean oil										
Production	7,803	8,570	9.8%	0.7%		10,800	12,480	15.6%	1.5%	
Biofuel	1,562	1,821	16.6%	1.5%		4,649	6,144	32.2%	2.2%	
Exports	5,791	6,230	7.6%	0.4%		1,500	1,355	-9.6%	0.9%	
Soybean meal										
Production	30,908	33,295	7.7%	0.5%		41,580	47,807	15.0%	1.5%	
Feed	2,061	2,529	22.7%	1.8%		20,500	26,517	29.4%	2.6%	
Exports	28,847	30,742	6.6%	0.4%		20,800	21,282	2.3%	0.4%	
	Paraguay					Uruguay				
	2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual		2023 / 2024	2033 / 2034	Δ% 10-year	Δ% annual	
Soybean										
Production	10,500	12,765	21.6%	2.3%		3,200	3,363	5.1%	1.2%	
Processing	3,500	5,046	44.2%	3.6%		100	106	6.1%	0.6%	
Exports	6,850	7,618	11.2%	1.6%		2,800	3,022	7.9%	1.2%	
Soybean oil										
Production	665	966	45.3%	3.7%		18	20	9.0%	0.8%	
Biofuel	0	0	0.0%	0.0%		0	0	0.0%	0.0%	
Exports	640	879	37.4%	3.6%		0	0	0.0%	0.0%	
Soybean meal										
Production	2,650	3,786	42.9%	3.5%		80	85	6.1%	0.6%	
Feed	600	927	54.4%	4.6%		275	280	2.0%	0.5%	
Exports	2,100	2,836	35.0%	3.0%		5	6	10.6%	2.0%	

Source: Mercosur baseline projections

Sunflower Complex: Argentina leads sunflower expansion, consolidating ABPU global role

The baseline projections indicate a 13.7% increase in sunflower production within Mercosur over the next 10 years, rising from 3.7 million tons to 4.2 million tons (**Table 11**). Given that most sunflower production takes place in Argentina, nearly all the described movements can be observed in that country (**Figure 11**). Most sunflower production is used for domestic processing. Overall, crop processing is projected to grow by 12.6%, equivalent to an additional 431,000 tons.

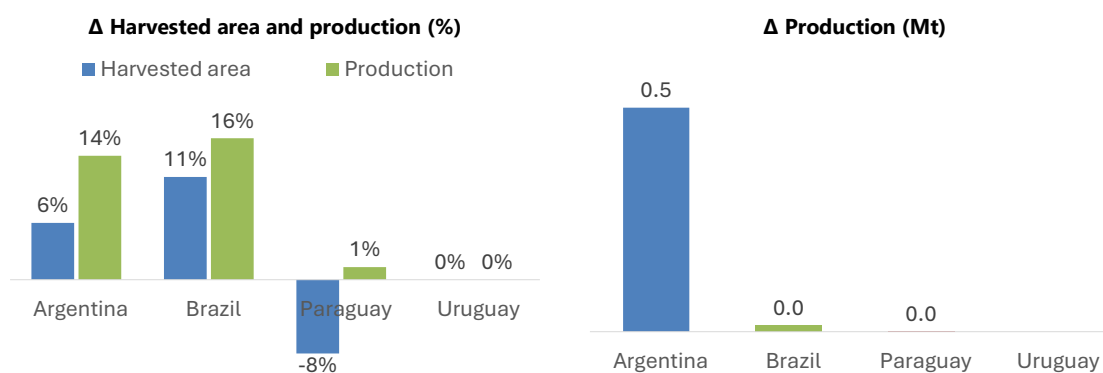
Table 11. Baseline projections of the Mercosur’s sunflower complex (thousands tons)

	2023 / 2024	2028 / 2029	2033 / 2034	Δ% 10- year	Δ% annual	
Sunflower						
Production	3,724	4,115	4,234	13.7%	0.7%	
Processing	3,425	3,768	3,856	12.6%	0.7%	
Exports	170	133	140	-17.5%	-0.5%	
Sunflower oil						
Production	1,527	1,691	1,753	14.8%	0.9%	
Consumption	773	801	835	8.1%	0.8%	
Exports	812	948	978	20.4%	1.1%	
Sunflower meal						
Production	1,496	1,652	1,690	-3.6%	0.3%	
Feed	609	846	595	0.0%	0.7%	
Exports	892	807	1,098	-8.7%	-0.2%	

Source: Mercosur baseline projections

Sunflower oil production is also projected to grow according to baseline, with an increase of 14.8% in the quantities produced, averaging a 0.9% annual growth rate. This production is almost evenly split between consumption within the bloc and net exports. Baseline projects growth in both sunflower oil consumption and exports, with an additional 62,000 and 166,000 tons, respectively, over the 10-year period.

Figure 11. Sunflower production and harvested area change (2033/2034 vs. 2023/2024)



Source: Mercosur baseline projections

Although the ABPU region holds significantly less relevance in the sunflower market compared to soybeans, Argentina remains a key player, ranking as the 4th largest sunflower producer in the world. In the 2023/24 season, Argentina's sunflower production is estimated at 3.6 million tons, accounting for approximately 6-7% of global supply, placing it behind Russia (16-17 million tons), Ukraine (14-15 million tons), and the European Union (over 10 million tons). Argentina's sunflower output is projected to grow 14% over the next decade, reaching 4.1 million tons. At the same time, sunflower oil production will increase by 15.6%, reinforcing Argentina's role as a key supplier to both domestic and international markets.

Meat

ABPU’s meat production and exports show overall growth in the baseline scenario. Total meat production, including beef, poultry, and pork, was 37.9 million tons in 2023 and is projected to increase to 43.7 million tons by 2033—an additional 5.8 million tons, or 15% growth. Out of this total production, 3.2 million tons will be destined for exports.

As can be seen in **Table 12**, beef production is expected to grow by 10.5% over ten years, with an annual increase of 0.9%, reaching 17 million tons by the end of the period. Consumption is projected to rise more moderately, increasing by 5.4% over the decade (0.7% annually), while exports are forecasted to grow at a faster pace, expanding by 22.1% over ten years (1.5% annually) to reach 5.7 million tons in 2033.

Table 12. Baseline projections for meat in ABPU (thousand tons)

	2023	2028	2033	Δ 10 años	Δ anual	
Beef						
Production	15,390	16,070	17,008	10.5%	0.9%	
Consumption	10,799	10,964	11,385	5.4%	0.7%	
Exports	4,705	5,229	5,743	22.1%	1.5%	
Poultry						
Production	17,304	18,825	20,087	16.1%	1.5%	
Consumption	12,407	13,111	13,539	9.1%	0.8%	
Exports	4,912	5,739	6,569	33.7%	3.0%	
Pork						
Production	5,224	5,901	6,658	27.5%	2.5%	
Consumption	3,892	4,404	4,880	25.4%	2.2%	
Exports	1,417	1,588	1,870	32.0%	3.1%	

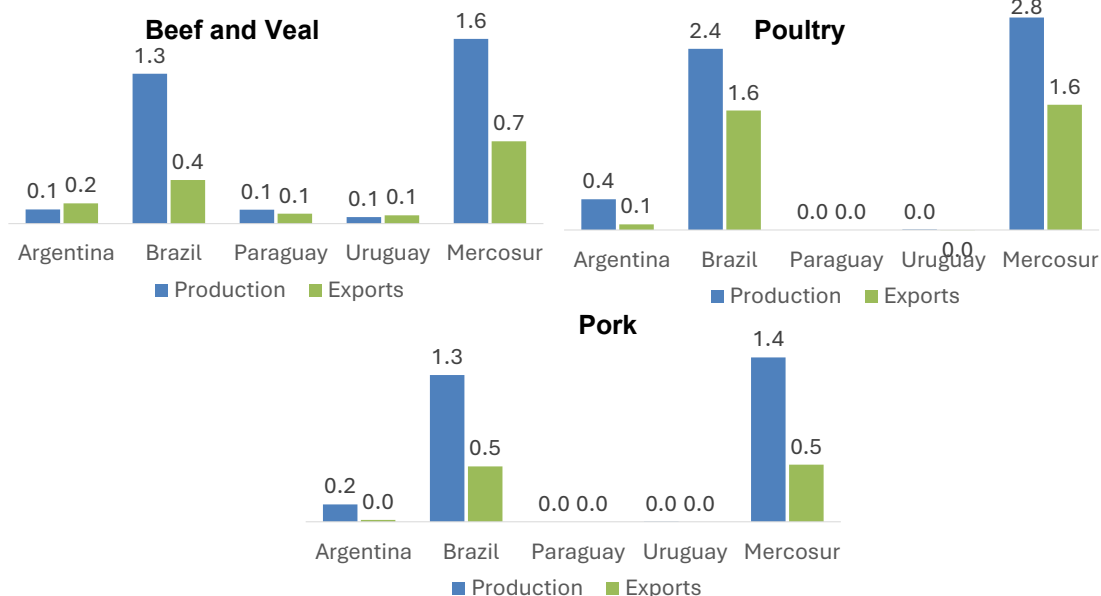
Source: Mercosur baseline projections

Poultry production is set to expand by 16.1% over ten years, reaching 20 million tons by 2033. Consumption is expected to rise by 9.1%, while exports will experience the highest growth among the three meat categories, surging by 33.7% (3.0% annually) to reach 6.6 million tons.

Pork production exhibits the most dynamic growth rates, with an expected 27.5% increase over the decade (2.5% annually), rising from 5.2 million to 6.7 million tons. Consumption is projected to follow closely, growing by 25.4%, while exports are expected to expand by 32.0% (3.1% annually), further reinforcing pork’s growing role in international trade, reaching 1.9 million tons, up from 1.4 million tons in 2023.

Figure 12 displays the changes in production and exports over the next decade by country. All meat production is led by Brazil, followed by Argentina, and the largest increases are seen in Poultry. In Paraguay, only bovine meat is modelled due to the lack of a complete dataset.

Figure 12 : Changes in meat production (2033 vs. 2023), Δ Mt



Source: Mercosur baseline projections

Brazil remains the largest beef producer in ABPU, with output projected to reach 12.26 million tons by 2033, marking a 12% increase over the period. The country is also the world’s second-largest beef producer, behind the United States, and the largest beef exporter, with shipments expected to grow to 3.48 million tons by 2033. Argentina will produce 3.40 million tons (+3.8%), followed by Paraguay (1.47 million tons, +22.7%) and Uruguay (0.72 million tons, +9.7%).

Other Products

Cotton and Sugar

The baseline projects a 22.1% growth in cotton production within Mercosur over a 10-year period, rising from 3.6 million tons to 4.5 million tons, and displaying an average annual growth of 2.3% (**Table 13**). Consumption within ABPU remains relatively stable, with an average annual growth rate of 0.3%, amounting to a total increase of 4.2%, or 35 thousand tons. Exports are projected to grow by 23.1% over the decade, at an average annual rate of 2.8%, leading to a export increase of 651 thousand tons. The key player in Mercosur is Brazil (**Table 14**), which has become the world’s largest cotton exporter in 2024 (Agência Brasil, 2024). Currently, the Asian market (Turkey, Indonesia, Vietnam, South Korea, and Pakistan) demands more than 72% of Brazilian cotton.

Table 13. Baseline projections of the Mercosur's cotton and sugar (thousand tons)

	2023 / 2024	2028 / 2029	2033 / 2034	Δ% 10- year	Δ% annual	
Cotton						
Production	3,569	3,659	4,357	22.1%	2.3%	
Consumption	839	879	875	4.2%	0.3%	
Exports	2,820	2,776	3,471	23.1%	2.8%	
Sugar						
Production	45,465	49,945	52,351	15.1%	1.3%	
Final consumption	10,519	11,878	12,915	22.8%	2.1%	
Exports	34,703	38,232	39,507	13.8%	0.9%	

Source: Mercosur baseline projections

The projected growth in sugar production is 15.1%, increasing from 45.5 million tons to 52.3 million tons over the 10-year period (**Table 13**). Although it's important to note that these figures do not include sugarcane for ethanol production, which is addressed in the next section. A rise in domestic sugar consumption is projected at 22.8%, amounting to nearly 2.4 million additional tons. In contrast, sugar exports are expected to go up by 13.8%, representing an annual average of 0.9%. Over the projected decade, Mercosur's sugar exports would increase by approximately 4.8 million tons.

Table 14. Baseline projections of the Mercosur's cotton and sugar, by countries (thousand tons)

	Argentina					Brazil				
	2023 / 2024	2033 / 2034	Δ% 10- year	Δ% annual		2023 / 2024	2033 / 2034	Δ% 10- year	Δ% annual	
Sugar										
Production	2,000	2,028	1.4%	0.4%		43,290	50,200	16.0%	1.3%	
Final con.	1,470	1,724	17.3%	1.6%		8,871	10,996	24.0%	2.2%	
Exports	625	297	-52.6%	-5.8%		34,000	39,196	15.3%	1.0%	
Cotton										
Production	352	400	13.5%	0.0%		3,172	3,912	23.3%	2.7%	
Consumption	158	186	17.7%	1.7%		675	681	0.9%	-0.1%	
Exports	109	217	99.6%	3.8%		2,678	3,215	20.0%	2.9%	
	Paraguay					Uruguay				
	2023 / 2024	2033 / 2034	Δ% 10- year	Δ% annual		2023 / 2024	2033 / 2034	Δ% 10- year	Δ% annual	
Sugar										
Production	150	102	-32.0%	-3.9%		25	21	-17.4%	-2.0%	
Final con.	76	90	18.1%	1.8%		102	106	3.5%	-0.1%	
Exports	75	12	-83.4%	-15.4%		3	1	-55.3%	-6.9%	
Cotton										
Production	45	46	2.3%	0.1%		0	0	0.0%	0.0%	
Consumption	7	8	15.0%	1.7%		0	0	0.0%	0.0%	
Exports	33	39	18.3%	-0.3%		0	0	0.0%	0.0%	

Source: Mercosur baseline projections

Dairy products

Baseline projections indicate an increase in milk production of 3,936 million liters over the next 10 years, with an average annual growth rate of 0.8% (Table 17). Milk and dairy production are currently modelled for Argentina, Brazil and Uruguay. All dairy products are expected to see an increase in production, led by skimmed milk powder, with an average growth rate of 1.5%, followed by cheese (1.3%), butter (1.2%), and whole milk powder (0.6%).

Currently Dairy products in ABPU are heavily oriented to local consumption, although the block as a whole is a net exporter. Brazil is a net importer on most dairy products, and Argentina and Uruguay are net exporters, mostly in whole milk powder. This structure is expected to be maintained in the next decade.

Table 17. Baseline projections of ABPU dairy products (thousand tons or million liters for milk)

	2023	2028	2033	Δ% 10-year	Δ anual	
Milk						
Production	50,588	52,011	54,524	7.8%	0.8%	
Butter						
Production	117	131	137	16.7%	1.2%	
Consumption	101	103	106	4.7%	0.6%	
Net exports	17	28	31	81.4%	3.7%	
Cheese						
Production	1,236	1,334	1,407	13.9%	1.3%	
Consumption	1,294	1,302	1,354	4.6%	0.6%	
Net exports	59	32	53	-9.9%	-	
Whole milk powder						
Production	927	994	1,027	10.8%	0.6%	
Consumption	806	847	886	10.0%	1.1%	
Net exports	106	146	139	31.5%	-1.5%	
Skimmed milk powder						
Production	192	225	234	21.9%	1.5%	
Consumption	212	213	216	2.0%	0.3%	
Net exports	-17	12	18	-	-	

Notes: *Only are modeled Argentina, Brazil, & Uruguay. Source: Mercosur baseline projections

Brazil leads dairy production, with output expected to reach 39.82 billion liters by 2033, followed by Argentina (12.58 billion liters), Uruguay (2.20 billion liters), and Paraguay (2.12 billion liters). In cheese production, Argentina will reach 432,000 tons, Brazil 870,000, and Uruguay 69,000 tons, with Uruguay’s cheese exports growing to 30,000 tons (+31.2%). Powdered milk production is set to expand, with Argentina producing 296,000 tons (+34%), while Brazil will reach 781,000 tons (+7.5%) and Uruguay 185,000 tons (+8.1%).

Table 18. Baseline projections of ABPU dairy products, by country (thousand tons or million liters for milk)

	Argentina					Brazil			
	2023	2033	Δ% 10- year	Δ% annual		2023	2033	Δ% 10- year	Δ% annual
Milk					Milk				
Production	11,702	12,582	7.5%	0.8%	Production	36,772	39,816	8.3%	0.8%
Milk powder					Milk powder				
Production	220	296	34.4%	1.7%	Production	728	781	7.2%	0.5%
Consumption	95	103	8.0%	0.9%	Consumption	918	994	8.3%	1.0%
Exports	123	193	56.7%	1.9%	Exports	1	9	788.0%	23.1%
Cheese					Cheese				
Production	401	468	16.8%	1.6%	Production	770	870	12.9%	1.2%
Consumption	440	432	-1.9%	0.5%	Consumption	808	878	8.7%	0.7%
Exports	82	39	-52.8%	-5.7%	Exports	3	2	-20.5%	-0.1%
Butter					Butter				
Production	36	47	29.6%	1.7%	Production	81	90	11.0%	1.0%
Consumption	14	13	-4.0%	0.5%	Consumption	87	92	6.1%	0.6%
Exports	23	33	44.5%	2.1%	Exports	0	2	0.0%	0.0%

	Uruguay			
	2023	2033	Δ% 10- year	Δ% annual
Milk				
Production	2,114	2,127	0.6%	0.4%
Milk powder				
Production	171	185	8.1%	0.6%
Consumption	5	6	18.6%	1.3%
Exports	157	179	14.1%	0.9%
Cheese				
Production	65	69	7.1%	1.1%
Consumption	46	44	-5.0%	0.1%
Exports	23	30	31.2%	2.5%
Butter				
Production	0	0	0.0%	0.0%
Consumption	0	0	0.0%	0.0%
Exports	0	0	0.0%	0.0%

Source: Mercosur baseline projections

Conclusion

Over the next decade, the ABPU region will continue to solidify its role as a leading force in global agriculture, driven by sustained production growth, technological advancements, and increasing export volumes. While Brazil and Argentina remain dominant, Paraguay and Uruguay are expanding their presence in key agricultural markets, particularly in soybean processing, rice, and barley.

The oilseed sector will remain a pillar of ABPU's agricultural economy, with Brazil consolidating its role as the world's top soybean exporter and Argentina maintaining its leadership in soybean meal and oil. The expanding biofuel industry, particularly in Brazil, is set to reshape market dynamics, increasing domestic processing and altering trade flows. Paraguay's sharp rise in soybean processing capacity underscores its growing strategic role, while Uruguay's steady expansion in production reinforces its position as a niche player.

In the grain sector, corn and wheat will drive agricultural expansion. Brazil's surging biofuel industry will absorb a significant share of corn production, reducing the volume available for export, while Argentina cements its position as the region's top grain exporter. Paraguay and Uruguay's grain sectors will see structural shifts, with Paraguay focusing on increasing corn and rice production and Uruguay reinforcing its barley and rice industries.

In the livestock sector, Brazil remains ABPU's agricultural leader, dominating beef, poultry, and pork exports. Argentina and Paraguay will continue expanding beef exports, with Paraguay emerging as a stronger competitor. Argentina is also diversifying into pork and dairy exports, while Uruguay maintains stable but moderate growth.

As global demand evolves, ABPU's agricultural sector must navigate new challenges and opportunities. Investments in productivity, sustainability, and value-added processing will be essential for maintaining its competitive edge. With a diversified and dynamic agricultural landscape, ABPU will remain a cornerstone of global food security and trade, shaping international agricultural markets in the coming decade.

CLOSING REMARKS

1. Economic and Trade Importance of ABPU

- The ABPU bloc (Argentina, Brazil, Paraguay, and Uruguay) is one of the world's largest food exporters, playing a vital role in global agricultural trade. Key exports include soybeans, corn, beef, and sugar. As an example, soy products from the four countries account for more than half of global soybean trade.
- Brazil, for instance, supplies 55.7% of global soybean exports, while Argentina leads in soybean meal and oil exports. Beef exports from Brazil and Uruguay dominate premium markets, contributing to trade surpluses that stabilize national economies.
- The region significantly contributes to global food security, with agricultural exports exceeding \$186 billion and a net agri-food trade surplus of \$164 billion.
- Agricultural remains a cornerstone sector of ABPU economies, contributing significantly to their exports. Notably, 10 of their top 20 exported products are from the agri-food sector.
- Value addition to raw commodities, such as processed soy derivatives and premium meat products, boosts competitiveness and economic resilience.

2. Sustainability and Environmental Challenges

- ABPU countries have abundant arable land, water resources, and biodiversity, positioning the region as a global agricultural powerhouse.
- Agricultural expansion is increasingly constrained by sustainability concerns. Regions such as the Amazon, Cerrado, and Gran Chaco are vulnerable to deforestation.
- Enforcement of environmental legislation, including Brazil's Forest Code and Argentina's Forest Law, is essential to harmonize agricultural productivity with conservation.
- Climate-smart agriculture (CSA) practices, like no-till farming and carbon sequestration, will be vital for balancing growth with ecological responsibility. The region must align its production systems with global sustainability standards to remain competitive in export markets.
- Examples of CSA adoption include Brazil's widespread use of integrated crop-livestock-forest systems and Argentina's no-till farming covering over 30 million hectares. These illustrate the region's potential for scalable sustainable practices.

3. Innovation and the Bioeconomy

- Bioeconomy offers significant opportunities for sustainable growth. Key sectors include bioenergy (e.g., biofuels), bioplastics, and agricultural biotechnology.

- Brazil leads bioethanol production, while Argentina dominates soybean processing industries. Uruguay and Paraguay contribute to renewable energy innovations and sustainable agricultural inputs.
- Bioeconomy shows the greatest growth prospects. Renewable energy (biofuels), bioproducts, and sustainable chemicals represent future investment areas. Technological innovation in genetic engineering and digital platforms will further enhance growth.
- Coordinated strategies across ABPU countries are necessary to fully leverage renewable resources and biological production. For example, partnerships in bio-based industrial products, like bioplastics, could improve competitive positioning.

4. Technological Advancements and Precision Agriculture

- Precision agriculture technologies—such as satellite-guided seeding, variable-rate fertilization, and digital yield mapping—are transforming farm productivity and sustainability.
- Digital tools for traceability are enhancing value in global markets, especially for beef and dairy, where consumers prioritize quality and sustainable sourcing.
- The implementation of platforms like Argentina’s VISEC for geolocated soy sustainability certification and Brazil’s satellite monitoring for deforestation control highlight technological leadership.
- Challenges in digital infrastructure, including access to reliable internet and affordability for small farmers, remain significant hurdles in rural areas.

5. Key Products and Agricultural Sectors

- Soybeans and Derivatives (Meal and Oil): The leading export product of the bloc. Brazil is the top producer, and Argentina excels in processing soybean meal and oil. Paraguay and Uruguay contribute as significant exporters.
- Corn: Demand for animal feed and bioenergy drives expansion. Brazil and Argentina are dominant producers.
- Beef: High-value markets are key targets, with Uruguay excelling in quality certification and traceability. Brazil and Argentina remain top global suppliers.
- Sugar and Bioethanol: Brazil leads global sugar production and bioethanol innovation.
- Poultry: Brazil is the second-largest global producer, driven by vertically integrated operations.

6. Projections for the ABPU Agricultural Sector: 10 Years Ahead

Products with the Highest Expected Growth

- **Soybeans and Derivatives:** soybeans will continue to be the cornerstone of ABPU agriculture. Brazil is projected to maintain its position as the largest global producer, with increased production driven by expanding cultivated areas and yield improvements through precision agriculture and advanced seed technology. Soybean meal and oil production, particularly in Argentina, will benefit from growing global protein demand.
Growth Factors: Rising demand from China and other Asian countries for animal feed and vegetable oils, technological advances in drought-resistant crops, and improved processing capacity in Argentina.

- **Corn:** is expected to experience substantial growth, particularly in Brazil and Argentina, due to its dual role in human consumption and bioenergy production. Expanding bioethanol production from corn in Brazil adds a critical dimension to its growth.
Growth Factors: Increasing global meat consumption (for feed) and rising biofuel demand.
- **Beef and Poultry:** Beef production will grow, particularly in Uruguay and Brazil, with a focus on premium, traceable products that meet sustainability standards. Poultry production will expand, driven by Brazil's integration of production systems and its status as a leading exporter.
Growth Factors: High demand in Asia and Europe for sustainably sourced meat products, advances in traceability, and methane reduction technologies.
- **Sugar and Bioethanol:** Bioethanol from sugarcane is expected to grow as renewable energy policies drive demand for cleaner fuel alternatives. Brazil's continued leadership in bioethanol innovation will position it for global expansion.
Growth Factors: Increased biofuel mandates and climate policies supporting renewable energy sources.
- **Bio-based Products and Renewable Energy:** The bioeconomy sector will grow significantly, with investments in bioplastics, bioenergy, and sustainable chemicals. Investments in second-generation biofuels and bioplastics will drive innovation.

Products with Expected Declines or Slower Growth

- **Wheat:** Wheat production is expected to grow slower, particularly in Argentina, where yields and harvested areas have stagnated recently.
Decline Factors: Increased competition from other regions (e.g., the Black Sea) and shifting land use toward more profitable crops like soybeans and corn.
- **Rice:** Rice production, particularly in Uruguay and Paraguay, may face slower growth or a potential decline due to limited expansion opportunities and higher input costs than other grains.
Decline Factors: Limited expansion potential and high production (and reduced compared profitability) costs may hinder growth.
- **Cotton:** Cotton may see marginal declines as soybeans and corn remain more profitable alternatives for farmers. Brazil, the largest producer in the bloc, may stabilize rather than significantly expand.
Decline Factors: In international markets, land-use competition (soybean and corn) and price volatility.

Overall Sector Projections

- The soy complex (soybeans, meal, and oil) will remain the dominant driver of agricultural exports.
- Corn is projected to surpass other grains in terms of volume and value due to its diverse applications.
- Meat production (beef, poultry, and pork) will see growth tied to sustainable practices and premium product positioning.
- Bioenergy and biofuels will expand, with Brazil leading ethanol production and new developments in biogas and biodiesel across the region.

7. Main challenges

Environmental and Sustainability Pressures

- Deforestation: Brazil's Amazon and Cerrado regions, along with Argentina's Gran Chaco, remain under intense deforestation pressure due to agricultural expansion. Illegal logging and weak enforcement mechanisms exacerbate the problem, threatening biodiversity and carbon sequestration capacity.
- Land Degradation: Overreliance on monoculture crops like soybeans and limited crop rotation practices increase soil degradation. Climate-smart techniques are essential but require greater adoption.
- Water Resource Management: The sustainable use of water for irrigation, especially in drought-prone areas, will be critical for long-term agricultural productivity. Investments in efficient irrigation systems are necessary to mitigate climate variability.

Economic and Market Challenges

- Inflation and Macroeconomic Instability: Argentina's high inflation and volatile economic policies create significant risks for investment in agriculture. Currency devaluations impact the cost structure and profitability for exporters.
- Trade Barriers and Regulatory Misalignment: Inconsistent regulations for genetically modified organisms (GMOs) and sanitary standards pose trade risks. The lack of a harmonized Low-Level Presence (LLP) policy for GMOs across the bloc can result in market access issues.
- Dependency on Commodity Exports: Heavy reliance on raw commodity exports, such as soybeans and corn, leaves ABPU economies vulnerable to price volatility in global markets.

Infrastructure and Logistics Deficiencies

- Transportation Bottlenecks: Inefficient road, rail, and port infrastructure limit the competitiveness of agricultural exports. High logistics costs in Argentina and Brazil reduce profit margins for producers. Investments in multimodal transport systems are essential;
- Storage and Processing Capacity: Argentina's soybean processing industry faces underutilization due to policy-driven disincentives and reduced domestic grain availability. Improving storage facilities and processing efficiency will be key to maximizing value addition. Brazil storage capacity has a deficit of 130 million tons.

Technological and Digital Divide

- Access to Advanced Technologies: Small and medium-sized farms often lack the financial resources to adopt precision agriculture and digital tools. Bridging this technological gap will be crucial for inclusive growth;
- Internet and Power Infrastructure: Reliable internet coverage and energy access in rural areas remain uneven, hindering the full-scale implementation of smart farming solutions.

Climate Change Impacts

- **Extreme Weather Events:** Increasingly frequent droughts, floods, and temperature extremes directly affect crop yields and livestock productivity. Adaptation strategies, including diversified cropping systems drought-resistant seeds and better agro-climatic risk models, will be required.
- **Greenhouse Gas Emissions:** Livestock production, a significant emitter of methane, faces pressure to adopt carbon reduction technologies and regenerative grazing practices.

Social and Labor Issues

- **Rural Labor Shortages:** Migration to urban areas and the mechanization of farming have reduced the rural labor force. Developing skills for managing advanced agricultural machinery and digital tools will be critical.
- **Income Inequality:** Disparities between large-scale agribusiness and smallholder farmers persist, requiring targeted policies to ensure equitable access to technology and markets.

Policy and Governance Coordination

- **Fragmented Policies:** The lack of a unified agricultural strategy across ABPU countries weakens the bloc's ability to negotiate trade agreements and implement region-wide sustainability initiatives. Strengthening regional governance mechanisms is essential for cohesive policy action.

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