



GALT & TAGGART
CREATING OPPORTUNITIES

Blueberry Business in Georgia

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Key findings

Global trends: The global blueberry market has witnessed significant growth, with production increasing at a CAGR of 19.6% from 2017 to 2021, reaching 1.8bn kg. By 2025, production is expected to reach 3.0bn kg. The USA and China are both dominant producers and consumers of blueberries, while Peru, Chile, Spain, Canada, and the Netherlands lead in exports, influencing global prices. Export prices tend to be higher in the January-June period, driven by European supply, but decrease from July onwards when cheaper blueberries from Canada and Chile enter the market.

Blueberry production in Georgia: Georgia started ramping up blueberry production from 2019, driven by government and donor support. The total area of blueberry-cultivated land in Georgia has exceeded 2,000 ha by end-2022. As a result, Blueberry production increased 8.5x over 2019-23, from 0.5mn kg in 2019 to an estimated 4.0mn kg in 2023.

Yields and production forecast: Georgian blueberry orchards yield 14.5 tons per hectare, placing the country at 7th place globally, thanks to favorable climate and new plant species. Consequently, with the existing orchards, we expect the blueberry production to reach 25mn kg by 2027 from 4mn kg currently.

Blueberries are an export product for Georgia. Blueberry exports doubled in 2023, reaching 3.0mn kg, valued at US\$ 18.5mn. In 2023, the average export price of Georgian blueberries stood at US\$ 6.1 /kg. The main export destination is Russia, accounting for over 90% of total exports. However, the country is actively exploring alternative markets, with shipments to Germany, the Netherlands, and Poland in June 2023. These markets look promising, particularly during the June-July period when Georgia's exports are most active.

Future prospects: Despite rapid growth, Georgia's blueberry sector is relatively young, offering both opportunities and challenges. The anticipated surge in production over the next 5-10 years requires a focus on diversifying export markets. To address these issues, the industry must prioritize quality control, shelf life extension, and export market diversification, along with investing in cold storage and other infrastructure. Additionally, exploring processed blueberry products can further enhance the industry's potential.

Content

1

Global trends

2

Blueberry in Georgia

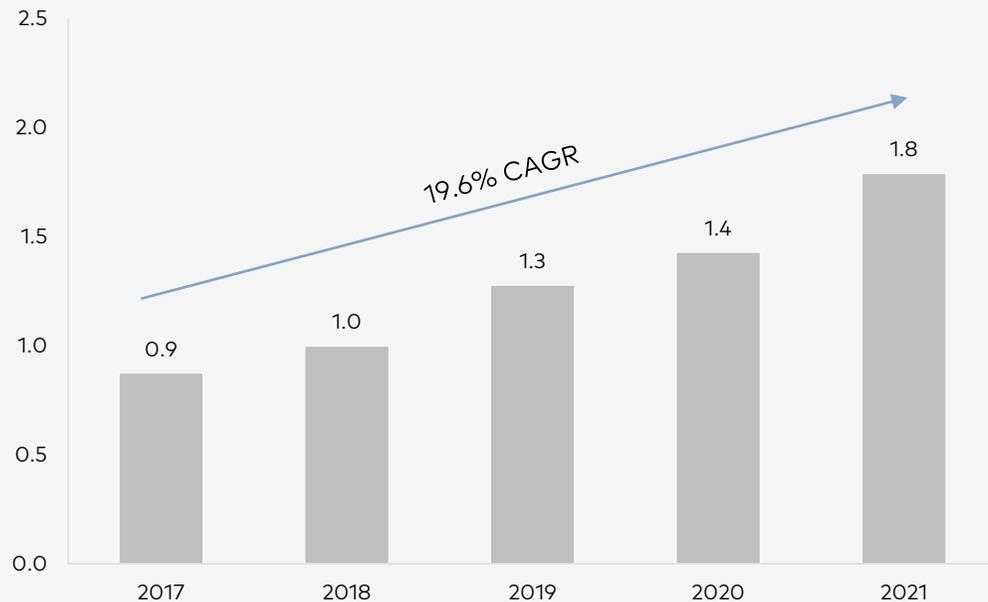
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Future prospects

Global blueberry production doubled over 2017-21 to 1.8bn kg and expected to grow further

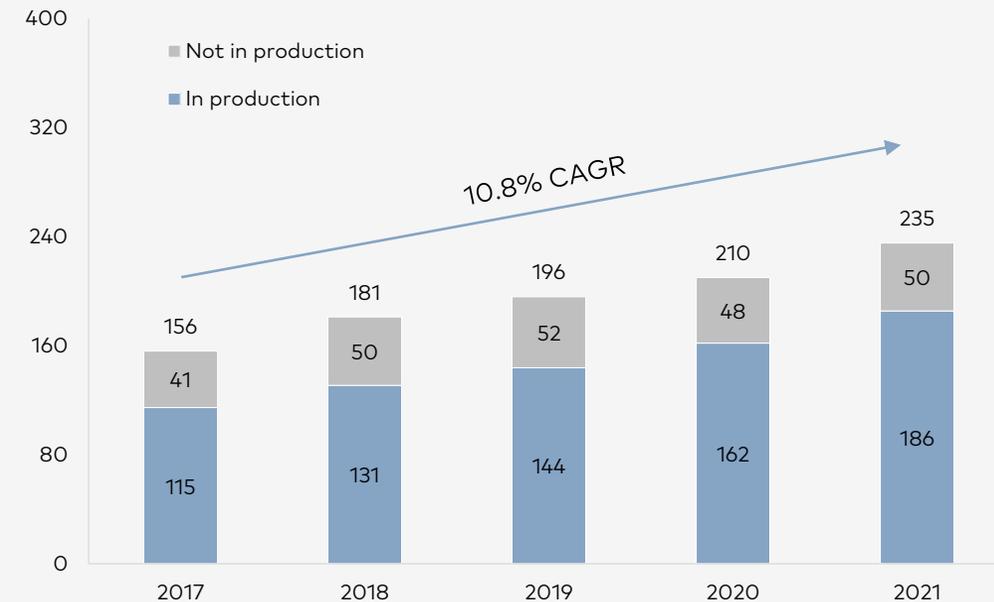
- Global blueberry production was up 19.6% CAGR over 2017-2021 to 1.8bn kg and expected to reach 3.0bn kg by 2025, according to International Blueberry Organization (IBO). The growth will be driven by planted area of new species and increased productivity.
- Planted area of blueberries was up 10.8% CAGR over 2017-21 to 235k ha globally, out of which 186k ha was in-production. According to IBO, further growth of blueberry orchards is expected, in line with increased popularity of the product.

World blueberry production, bn kg



Source: FAO, IBO, Galt & Taggart estimate
 Note: 2019-2021 is data from IBO and the 2017-18 is estimated from FAO and IBO data
 Note: includes production of highbush blueberry only

Blueberry area planted globally, 000' ha



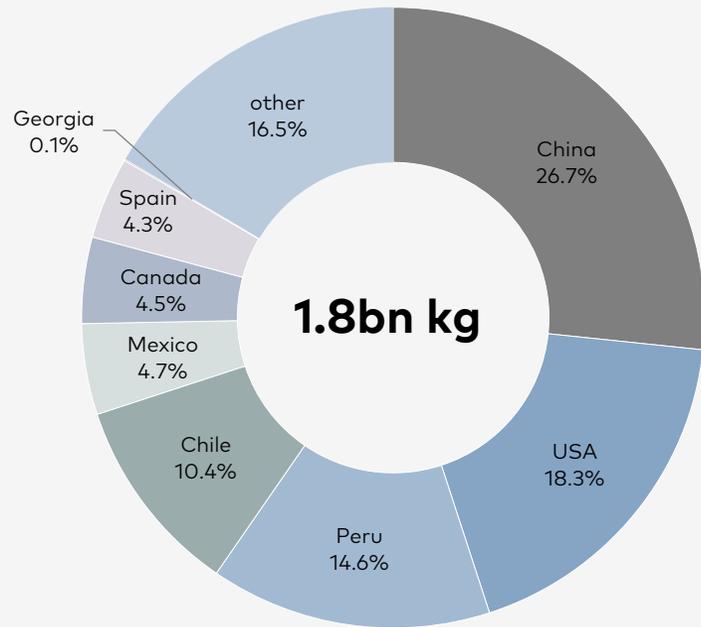
Source: IBO



Largest blueberry producers in the world are China and USA

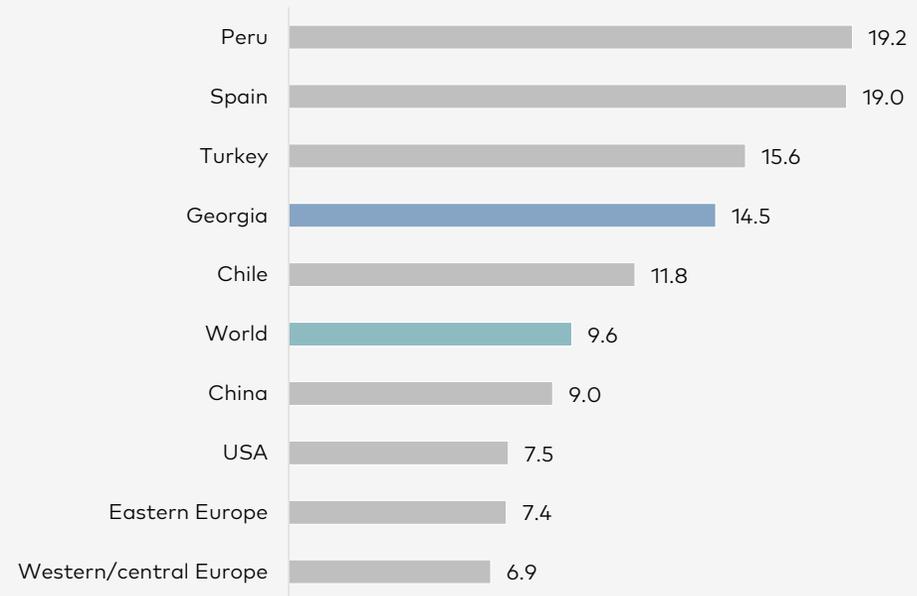
- The USA and China contributed to 45.0% of world blueberry production in 2021 thanks to large planting areas, compensating lower yields per hectare. Peru and Spain have most favorable climate conditions and soil for blueberry production, resulting in the highest yields.
- Georgia is relatively insignificant on the global scale in terms of production as its share is a mere 0.1%. Despite that, Georgia stands ahead of many countries in terms of blueberry yield per hectare at 14.5ton/ha. With this figure, Georgia ranks 7th in the world.

Blueberry production by country in 2021, kg



Source: IBO

Blueberry yields by countries in 2021, ton/ha



Source: IBO

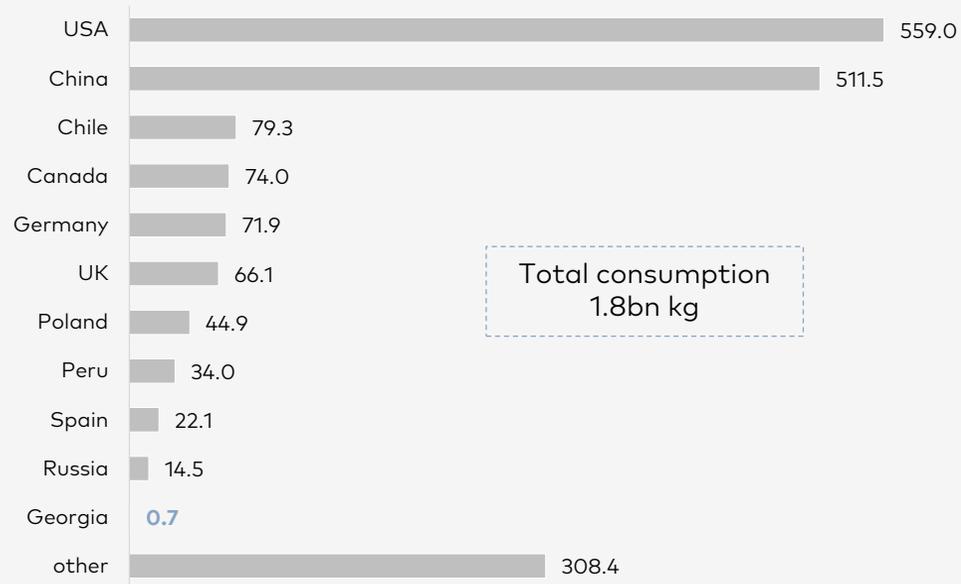
Note: This is average yield of selected large companies which have orchards harvesting at full capacity. Most of Georgian blueberry orchards are very young and not in full production capacity yet.



Despite largest production, USA and China are net importers of blueberries also

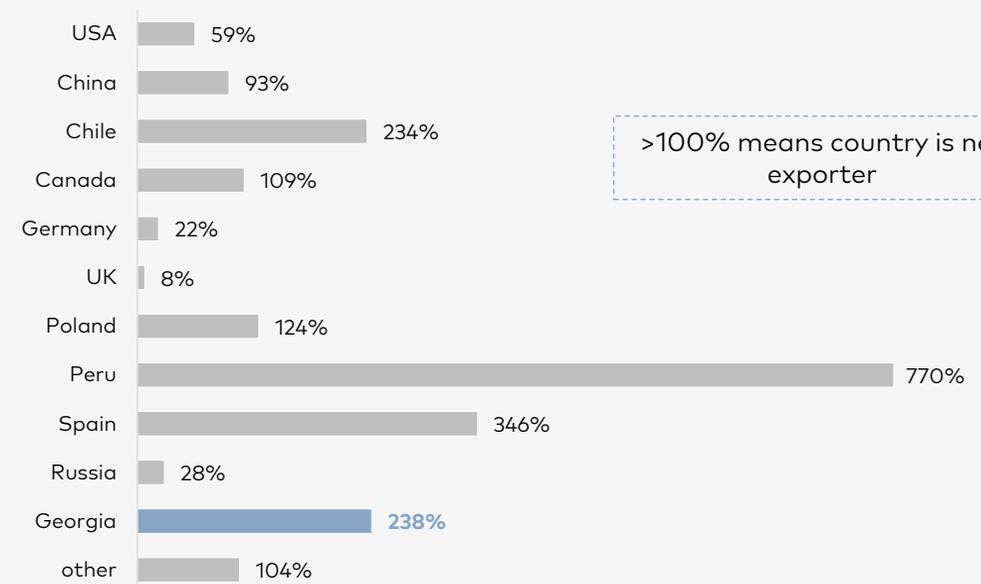
- Global blueberry consumption stood at 1.8bn kg in 2021, with 67.1% consumed fresh and 32.9% processed. China and the USA consumed 59.9% of global blueberry production in 2021. Despite being top producers of blueberries, both countries are also net importers.

Blueberry consumption of selected countries in 2021, mn kg



Source: ITC, IBO

Self-sufficiency of blueberries by country, 2021



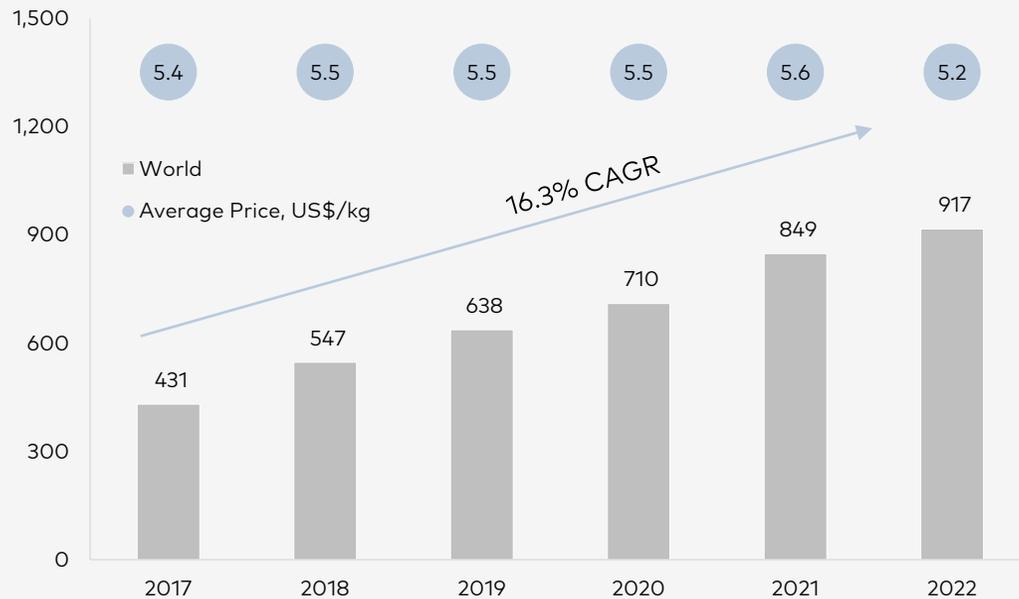
Source: ITC, IBO



Peru, Chile and Spain are the largest exporters of blueberries globally

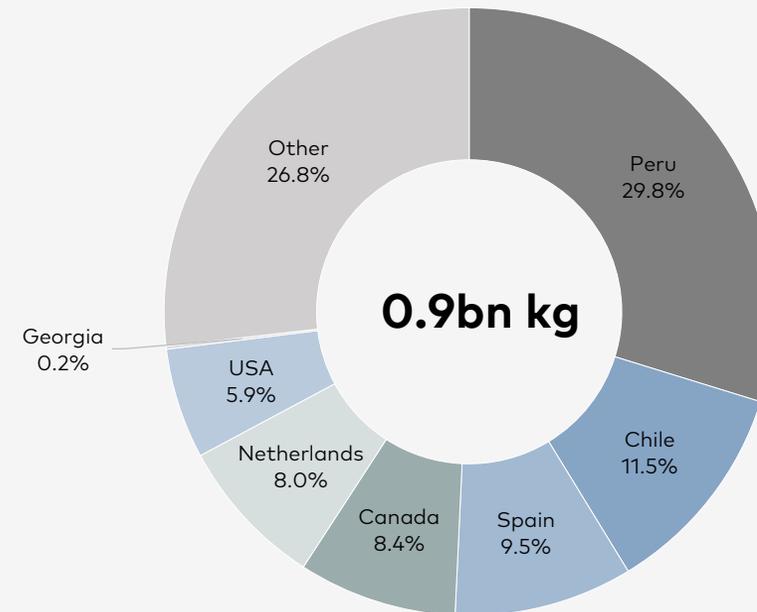
- World blueberry exports more than doubled over 2017-22 and reached 917.0mn kg in 2022. Top exporters were Peru, Chile and Spain, collectively exporting 50.7% of total in 2022. Blueberry export from Georgia is currently small, accounting for only 0.2% of the total in 2022.

World exports of blueberries, mn kg



Source: ITC
 Note: In 2022, the average export price fell at the expense of a 15% reduction in Peru's price;
 For export value dynamics see P23

World exports of blueberries by country, 2022

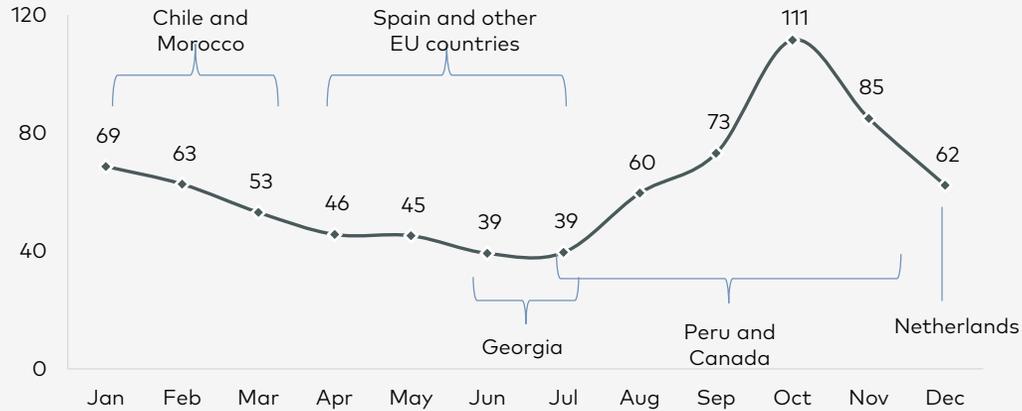


Source: ITC
 Note: Blueberry export distribution in value terms is on P23

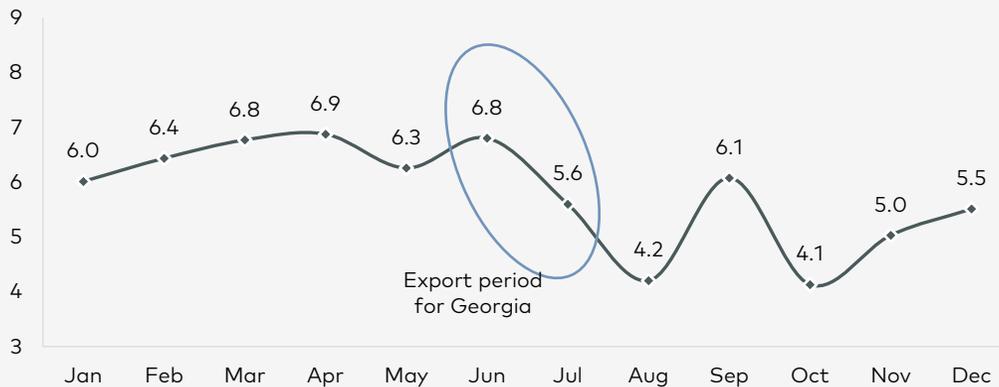


Global blueberry production, export and prices have distinct seasonality

Global blueberry exports, mn kg 2019-22 average



Global blueberry export price, in \$/kg, 2019-22 average



Source: ITC
 Note: Georgia is included on the chart for clarity and does not constitute a meaningful part of seasonal exports;

On the global scale of blueberry exports, in 2022:

- **Average global** export price stood at US\$ 5.2/kg.
- **Chile** and **Morocco** are the biggest exporters in **Jan-Mar** period, with average export prices at US\$ 4.8 and 5.5/kg, respectively.
- **Spain** becomes the top exporter in **Apr-Jul**, with above average prices at US\$ 5.7/kg.
- In the **2nd half of the year** **Peru** and **Canada** take the lead. Prices of these countries are relatively low:
 - average export price of **Canada** stood at US\$ 2.5/kg.
 - average export price of **Peru** was US\$ 4.9/kg.
- **The Netherlands** takes first place in supply in **December**. Netherland's blueberry is the most expensive at US\$ 7.5/kg.
- **Georgia** exports in **June and July**. Global prices in June are high as in this period Spain is the market price setter. In July prices decrease, as Canada ramps up the production and floods the market with cheap berries.

Content

1

Global trends

2

Blueberry in Georgia

3

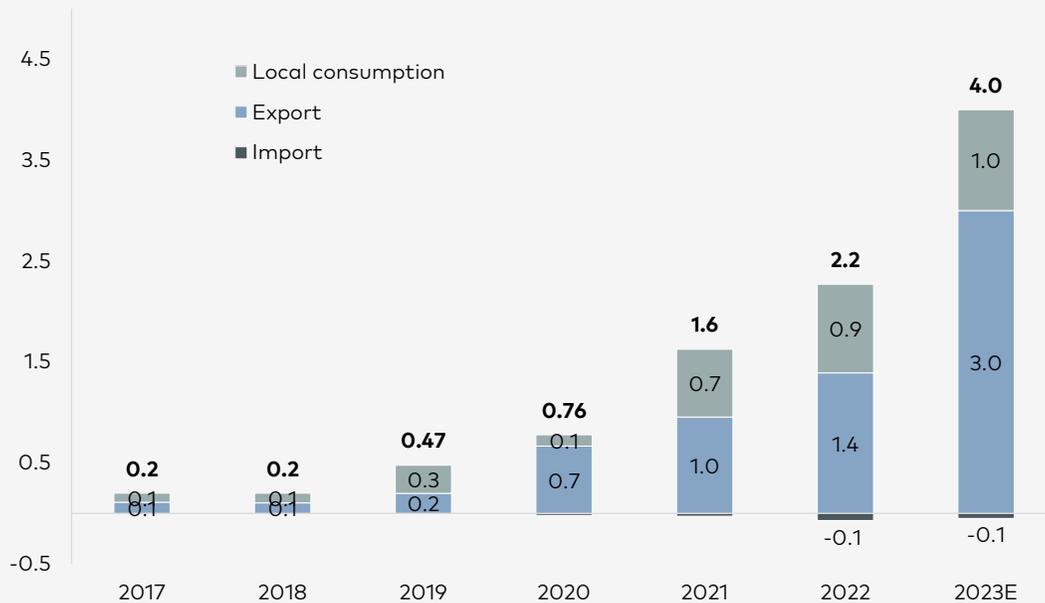
Future prospects



Georgia's blueberry production expected to reach c.25mn kg by 2027 vs. 4.0mn kg in E2023

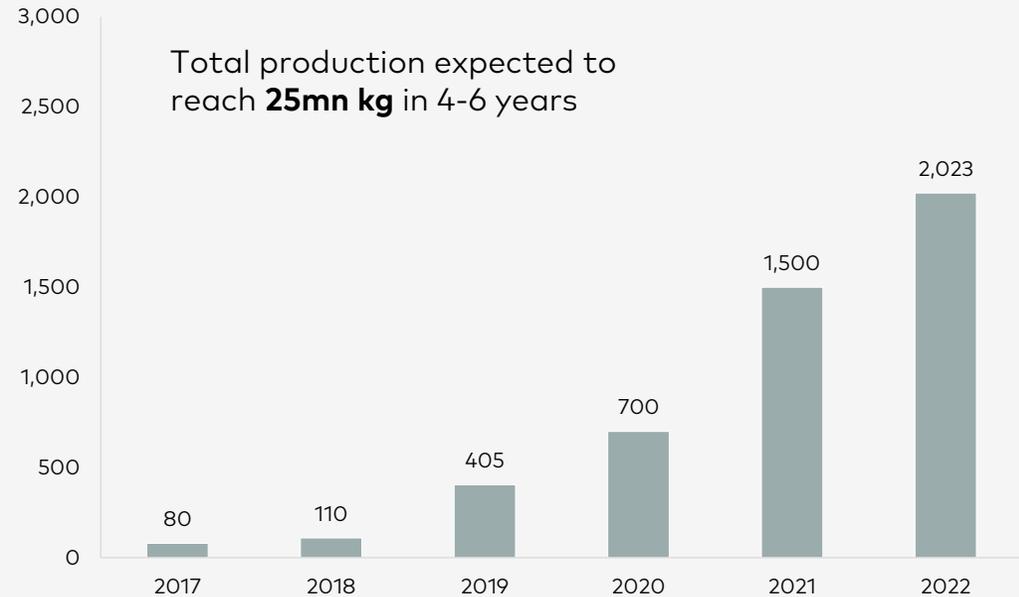
- Blueberry production in Georgia was up 8.5x over 2019-23 to an estimated 4.0mn kg in 2023. The growth was driven by Government and donor programs, stimulating development of blueberry orchards.
- In 2022, the planted area of blueberries reached 2,000 hectares. Although some of the harvest is already collected from 2nd year, blueberry orchards need 4-7 years until they reach full capacity, which is estimated at 14.5ton/ha for Georgia (according to IBO). Considering current planted area, even without any further addition of other orchards, Georgia's production will reach c.25mn kg by 2027.

Blueberry production in Georgia, mn kg



Source: Geostat, IBO, Galt & Taggart

Planted area of blueberries, ha



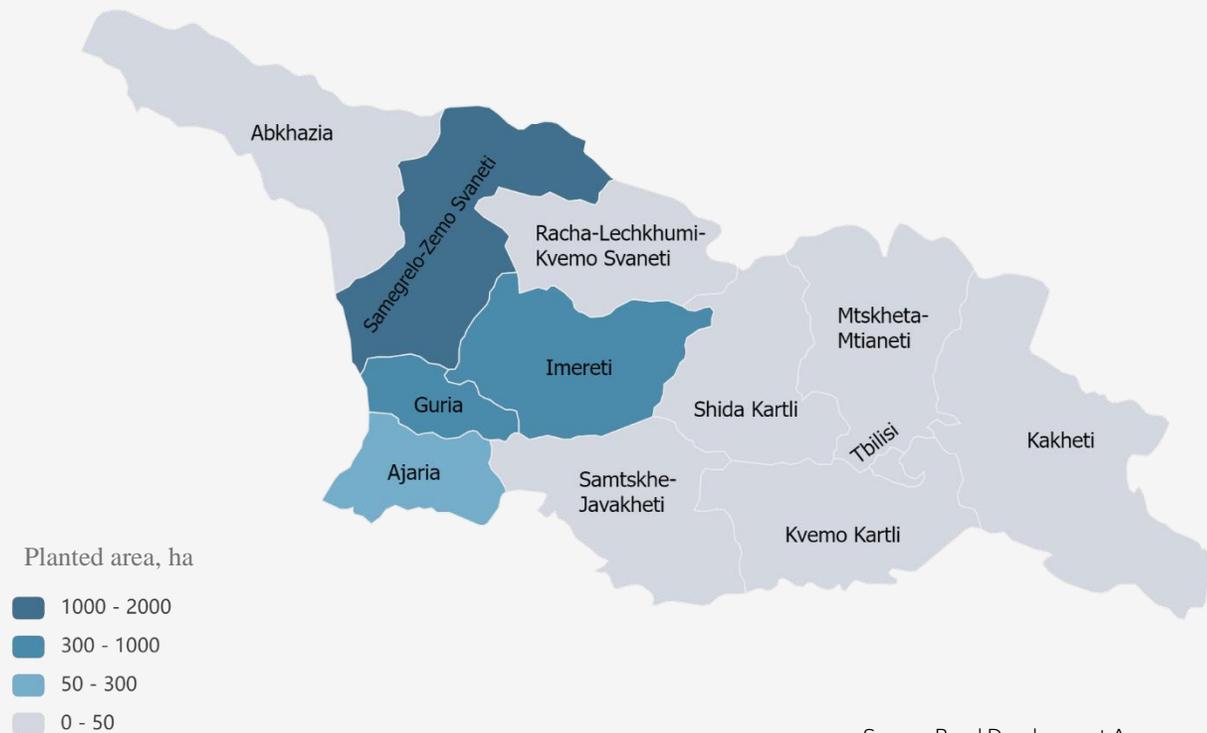
Total production expected to reach **25mn kg** in 4-6 years

Source: IBO, Rural Development Agency



Samegrelo is the leading blueberry producing region in Georgia

Regions of Georgia with blueberry orchards



Source: Rural Development Agency

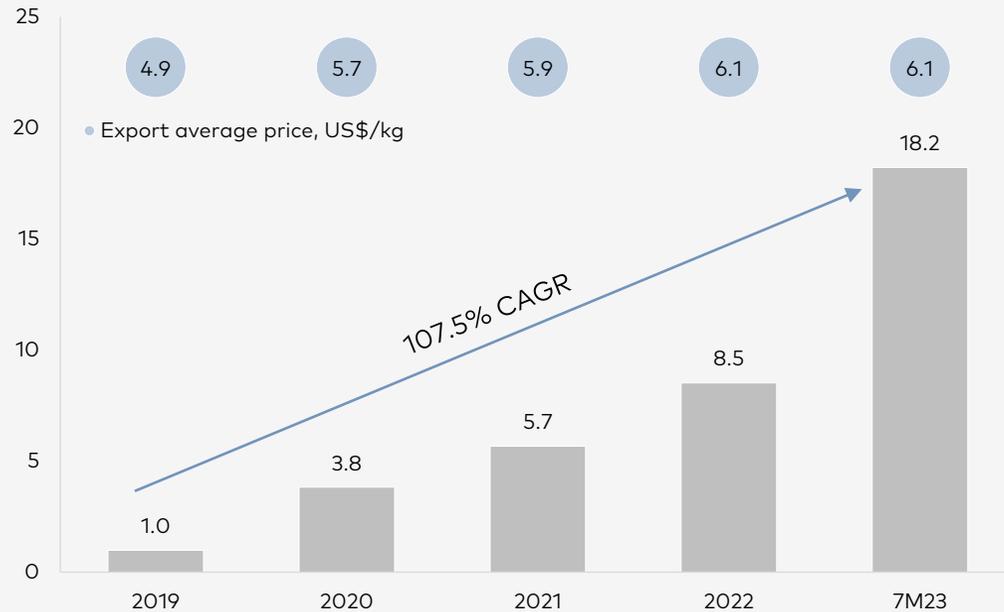
- Samegrelo has the largest planted area of blueberry in Georgia, containing over half of the total.
- Imereti and Guria are considered as earliest producers, while harvest in Samegrelo lasts longer.
- Average investment per ha of orchard was GEL 30.9k over 2017-22, while in 2022 average investment cost increased to GEL 33.3k per ha, according to Agency of Rural Development.



Georgia's blueberry exports doubled in 2023, reaching 3.0mn kg, valued at US\$ 18.2mn

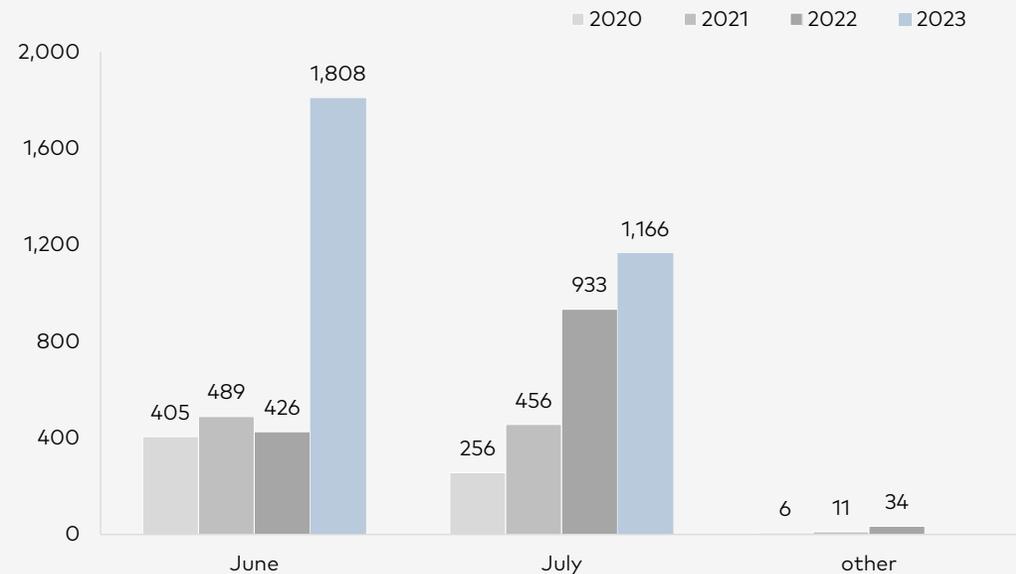
- The export of blueberries from Georgia started in 2019 and doubles every year both in terms of quantity and value. Blueberries exports reached US\$ 18.2mn and 3.0mn kg in 7M23, 2.1x higher than in 2022. As Georgia harvests blueberry in June and July, the export months are also limited to those two months. Average price started high at US\$ 6.3 /kg in Jun-23 and reduced to US\$ 5.5 in Jul-23 in line with global trends (see slide 8).
- Russia was the main destination of exported blueberries, accounting for 91.7% of total export value in 7M23. The rest was exported to Armenia, EU countries (Germany, Poland and the Netherlands), UAE and others.

Blueberry export from Georgia, US\$ mn



Source: Geostat, Ministry of Finance
 Note: Blueberry harvest season is over, therefore 7M23 figures can be estimated as FY 2023 figures

Georgian blueberry exports by export month, ton



Source: Geostat, Ministry of Finance



Wholesale blueberry prices were lowest in 2023

- Georgian wholesale prices of blueberries started at 20 GEL/kg in early Jun-23 and declined to 5.5 GEL/kg by end-July 2023. Generally, the price seasonality is explained by harvest periods and global trends (see page 8) .
- The wholesale prices of blueberry were on average 44.6% lower in 2023 compared to 2021 in GEL terms and 33.1% lower in US\$ terms, partly reflecting GEL appreciation.

Blueberry wholesale prices in Georgia, GEL/kg



Source: FAO, EBRD

Blueberry wholesale prices in Georgia, US\$/kg



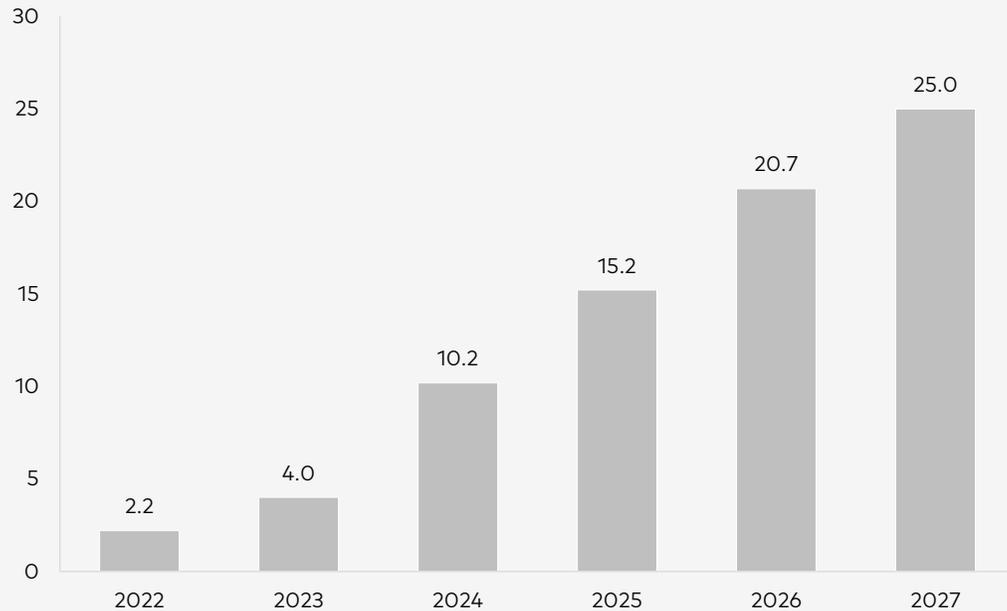
Source: FAO, EBRD



Georgia's blueberry export expected to reach 20mn kg by 2027

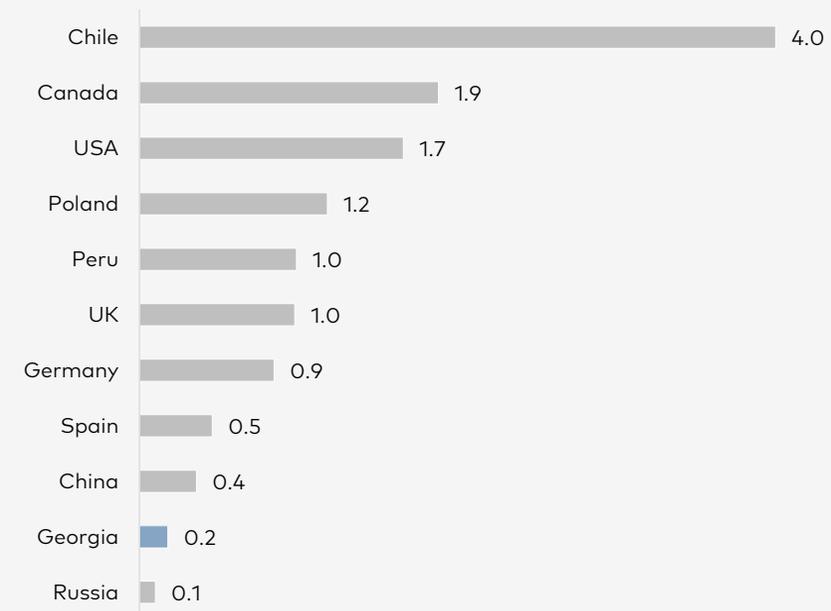
- We project Georgia's Blueberry production to reach 25mn kg by 2027, considering already planted blueberry orchards.
- Local consumption was 0.9mn kg (0.2kg per capita) in 2022 and we expect it to increase to 2.0mn kg (0.5 kg per capita) in 2027, with increased popularity and rising income.
- Hence, we expect Georgia's blueberry exports to reach 20mn kg by 2027.

Forecast of blueberry production in Georgia, mn kg



Source: Galt & Taggart Research

Per capita consumption of blueberries, kg



Source: IBO, World Bank, Galt & Taggart

Content

1

Global trends

2

Blueberry in Georgia

3

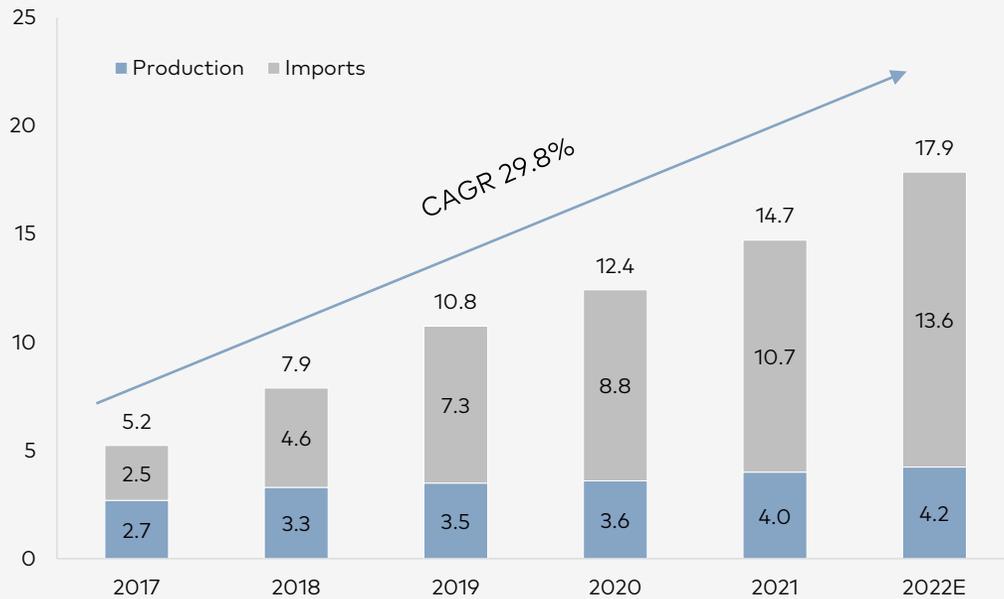
Future prospects



Georgia needs to establish itself in new export markets

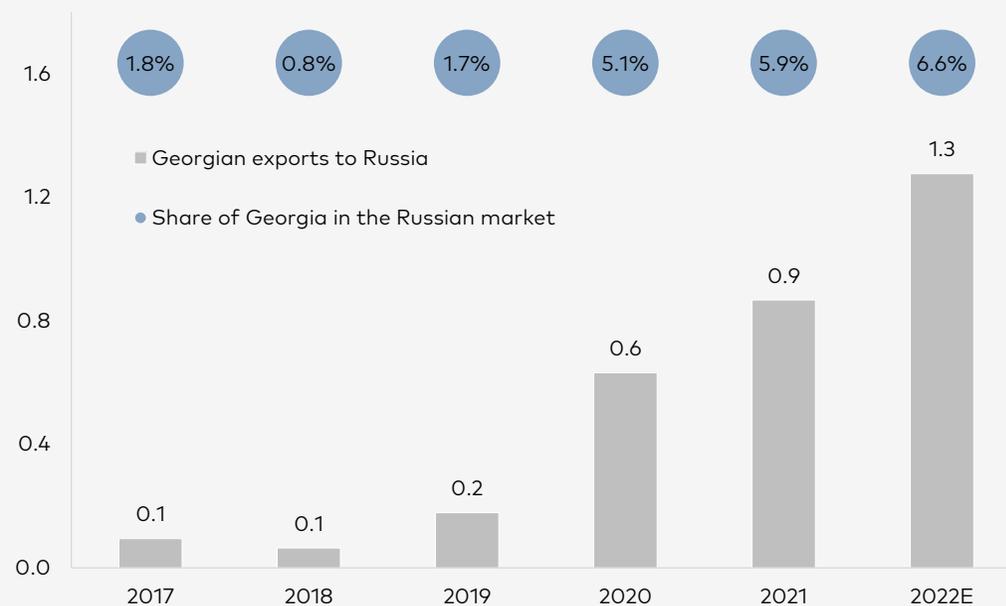
- Demand for imported blueberries in Russia during June-July expected to reach c. 14.4mn kg by 2027 from 3.9mn kg in 2022, considering current consumption pattern. By this time Georgia's export capacity will reach 25mn kg, suggesting the importance of establishing itself in new export markets.

Blueberry production and import in Russia, mn kg



Source: ITC, FAO, Galt & Taggart Research

Export of blueberry from Georgia to Russia, mn kg



Source: ITC, FAO, Geostat, Galt & Taggart Research

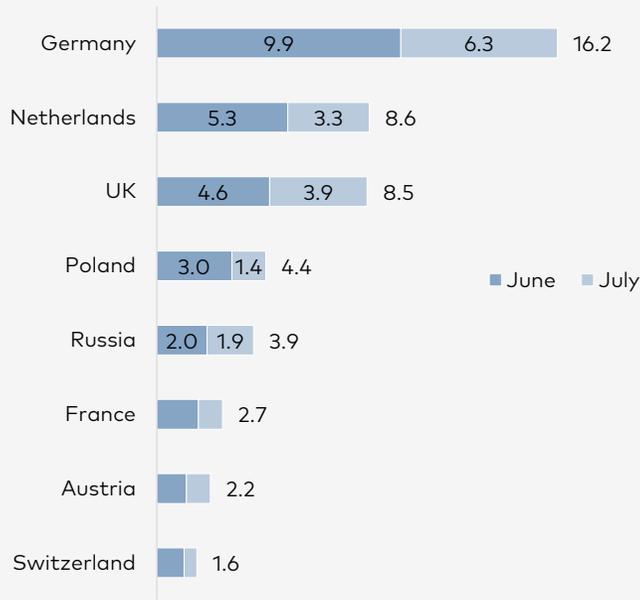


EU countries are attractive markets for Georgia

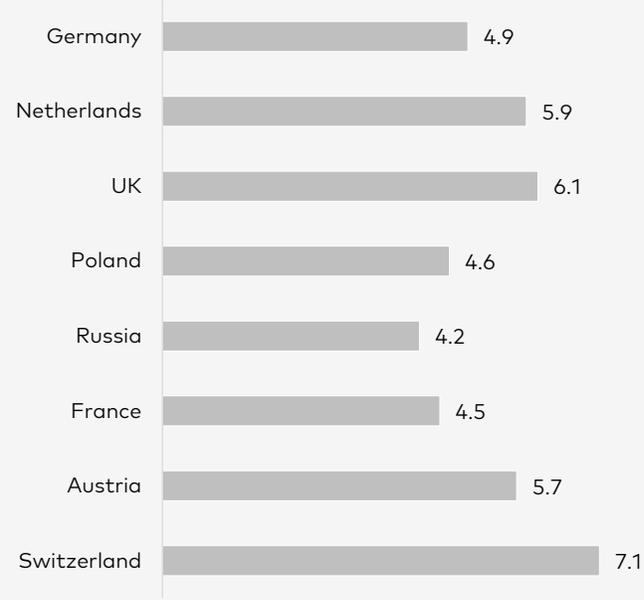
- Below we list some European countries with highest import volumes of blueberries in June and July (Georgia' harvest season), from which Germany, Netherlands and UK have highest demand.
- Notably, in Jun-23, Georgia started exports to Poland, the Netherlands and Germany and already gained some experience in that regard.

Blueberry imports in June-July of 2022

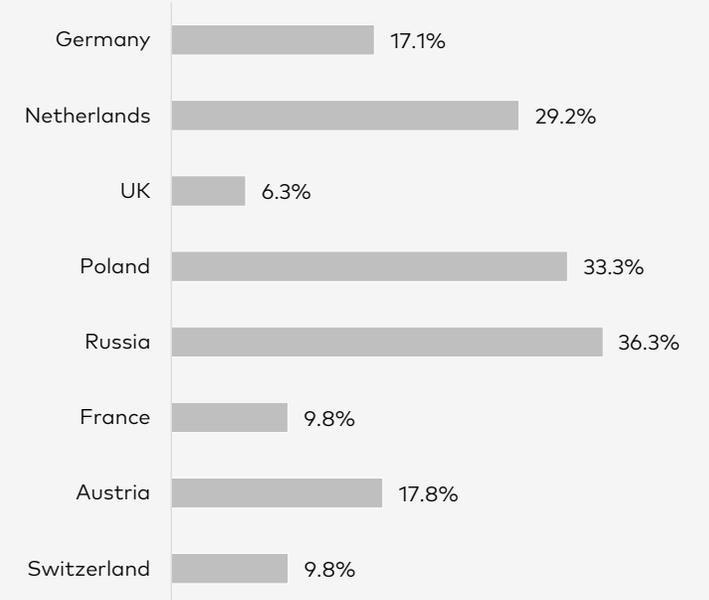
Import volume, mn kg



Import price, US\$/kg



CAGR of import volume, 2017-22



Source: ITC, Galt & Taggart

Note: CAGR shows annual compounded growth rate of total yearly demand on annual imports; For Russia import volume is based on mirror data of 2022, and average import price shows average Jun-21 and Jul-21 prices;

Blueberry processing is additional opportunity for Georgian producers

Blueberry processing offers an effective solution for absorbing the surplus of Georgian blueberries. By processing the berries, their shelf life is extended, allowing for sales even during high-price periods. This approach may be a valuable strategy for managing the fluctuations in blueberry prices and increasing overall profitability of the Georgian blueberry industry.



Jam/ Juice →

Blueberry Jam or Jelly: Blueberries can be cooked down with sugar and other ingredients to create a thick and sweet spread known as blueberry jam or jelly. It can be used as a topping for toast, pastries, or as an ingredient in various recipes and has a longer shelf-life compared to blueberries.

Blueberry Juice: Blueberries can be processed to extract their juice, which can be consumed as a standalone beverage or used as an ingredient in smoothies, cocktails, or other recipes.

For comparison, the world export market of berry juice and jam reached US\$ 0.2bn in 2022.



Dried →

Dried Blueberries: Blueberries can be dried to remove their water content, resulting in a preserved form. Dried blueberries are often used as a snack or added to cereals, baked goods, and is especially prevalent in trail mixes. It has a much higher shelf life compared to fresh blueberries.

For comparison, total world export for dried fruit found in trail mixes was US\$ 1.3bn in 2022.



Frozen →

Frozen blueberries are used in baked goods and other products. There are two ways of cooling berries:

- 1) regular cooling which simply extends the shelf life of berries by 3-4 weeks by preserving the freshness of the product;
- 2) shock freezing that extends the shelf-life of berries by several months.

For comparison, the export market size of the frozen berries (including raspberries, blackberries, mulberries, etc.) reached US\$ 1.7bn in 2022.



Blueberry sector is relatively young in Georgia, with areas to be addressed

- **Shelf life, storage and transportation:** the blueberry harvest lasts 2 months and can be stored for 2-3 weeks without further processing. Therefore, its proper post-harvest storage and transportation is of great importance. This requires the presence of specific distribution vehicles and cold storage facilities. Georgia has made some progress, but still severely lacks storage. Efficient logistics can help preserve blueberry freshness, extend shelf life, and enhance the overall quality of exports. By investing in logistics, Georgia can expand its reach to new markets and strengthen its position in the global blueberry trade.
- **Quality control and standards:** Quality assurance and compliance with international export standards is a challenge that requires strict quality control measures in the supply chain.
- **Plant care:** Since the blueberry industry is relatively new in Georgia, limited knowledge of plant diseases and maintenance costs can pose a threat to farmers. Government and donors' experience sharing programs aim to reduce these risks, prepare the market and take preventive measures.
- **Government support:** The Rural Development Agency of Georgia supports farmers both in terms of funding and knowledge sharing.
- **Alternative uses:** processed blueberry products such as frozen blueberries, dried fruit and juices have great potential (see p.18). The processing requires additional investment and scale.

Annex1: Blueberry production, import, export, consumption and self-sufficiency of selected countries

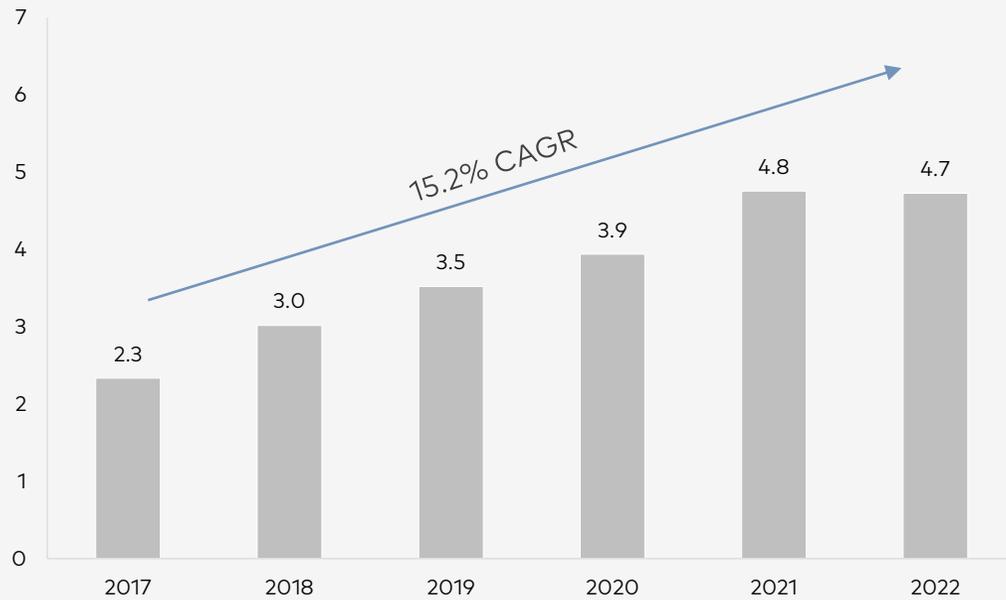
Selected data of 2021, tonnes

Country	Production	Import	Export	Local consumption	Self-sufficiency
China	477,000	34,570	40	511,530	93%
USA	328,210	253,180	22,380	559,010	59%
Peru	261,450		227,480	33,970	770%
Chile	185,300		106,050	79,250	234%
Canada	80,420	71,886	78,322	73,984	109%
Spain	76,360	35,337	89,646	22,051	346%
Poland	55,500	14,250	24,880	44,870	124%
Germany	15,500	62,290	5,850	71,940	22%
Italy	8,750	10,131	3,143	15,738	56%
Netherlands	8,100	115,470	91,520	32,050	25%
France	7,916	13,863	5,582	16,197	49%
United Kingdom	5,000	62,190	1,080	66,110	8%
Russia	4,000	10,720	202	14,518	28%
Lithuania	1,840	2,850	460	4,230	43%
Austria	1,740	8,041	1,253	8,528	20%
Georgia, 2022	2,200	70	1,393	878	251%
Belgium	830	8,973	5,740	4,063	20%
Switzerland	680	7,511	-	8,191	8%
other	231,964	134,234	143,185	219,180	104%
World	1,789,590	845,496	848,823	1,786,287	100%

Source: IBO, ITC

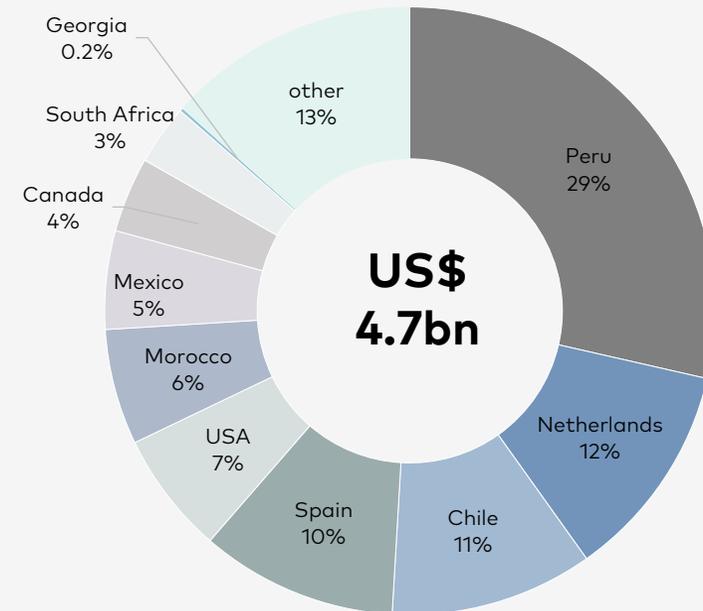
Annex 2: Peru, Netherlands, Chile and Spain are the largest exporters of blueberry by value

World exports of blueberries, US\$ bn



Source: ITC
Note: export volumes on Page 7

World exports of Blueberries by country, 2022

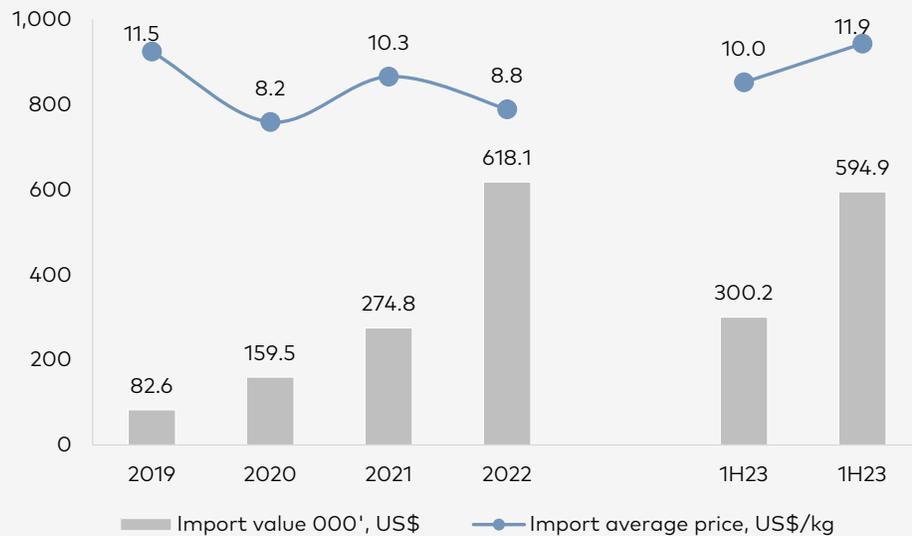


Source: ITC

Annex 3: Georgia's import of blueberry is insignificant and is mainly re-exported to Armenia

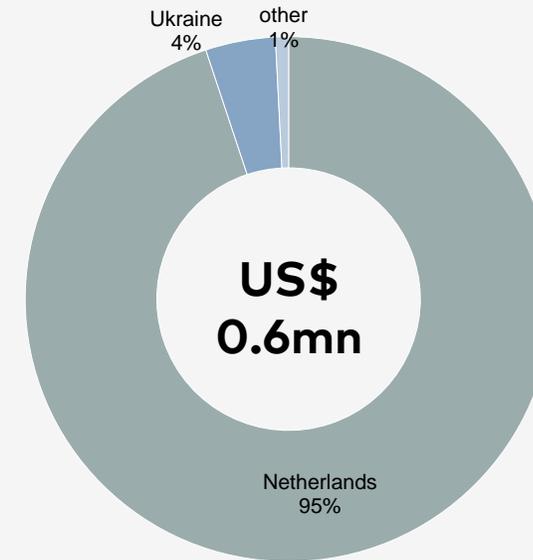
- Blueberry Imports increased 98.8% y/y in 1H23 to US\$ 0.6mn.
- Import takes place generally off-season in August-May period. In 1H23, 70.0% of the import value was re-exported to Armenia.

Blueberry imports to Georgia



Source: Geostat
 Note 1: Import price is different from export because of the difference in the mix of berries being imported

Blueberry importers to Georgia by country, 2022



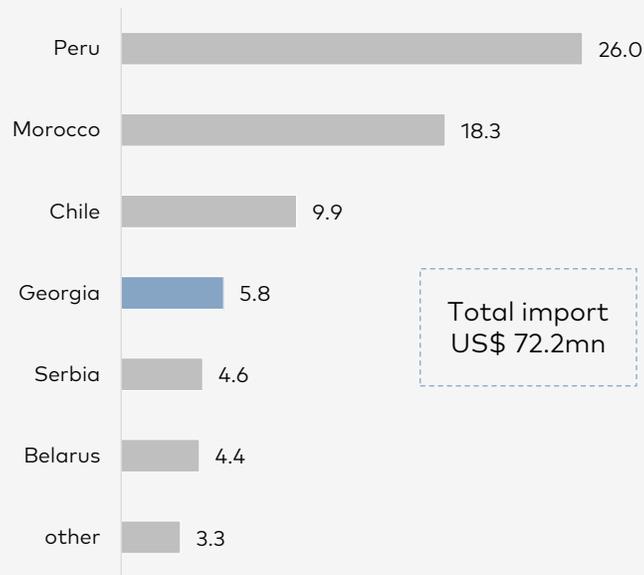
Source: Geostat



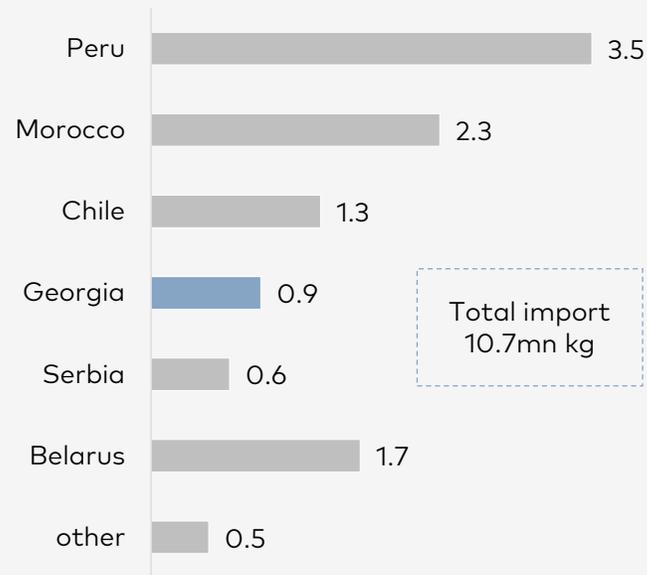
Annex 4: Blueberry imports to Russia

Blueberry imports to Russia in 2021

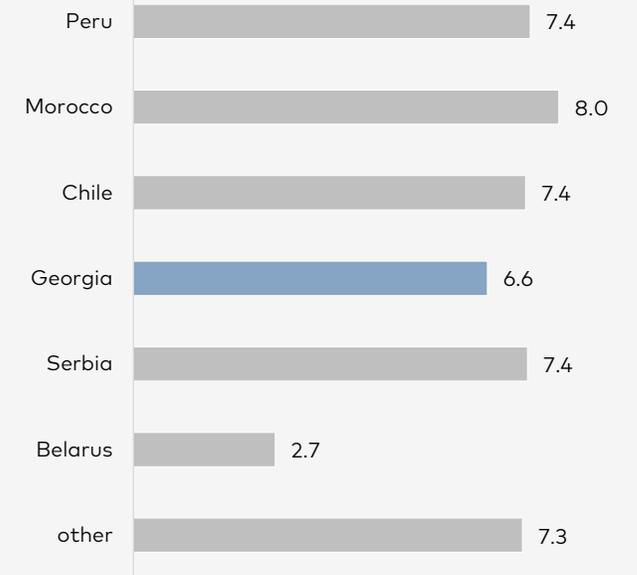
Import value, US\$ mn



Import volume, mn kg



Import price, US\$/kg



Source: ITC

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