

# AGRICULTURE SECTOR IN LEBANON

➤ 2020 FACTBOOK



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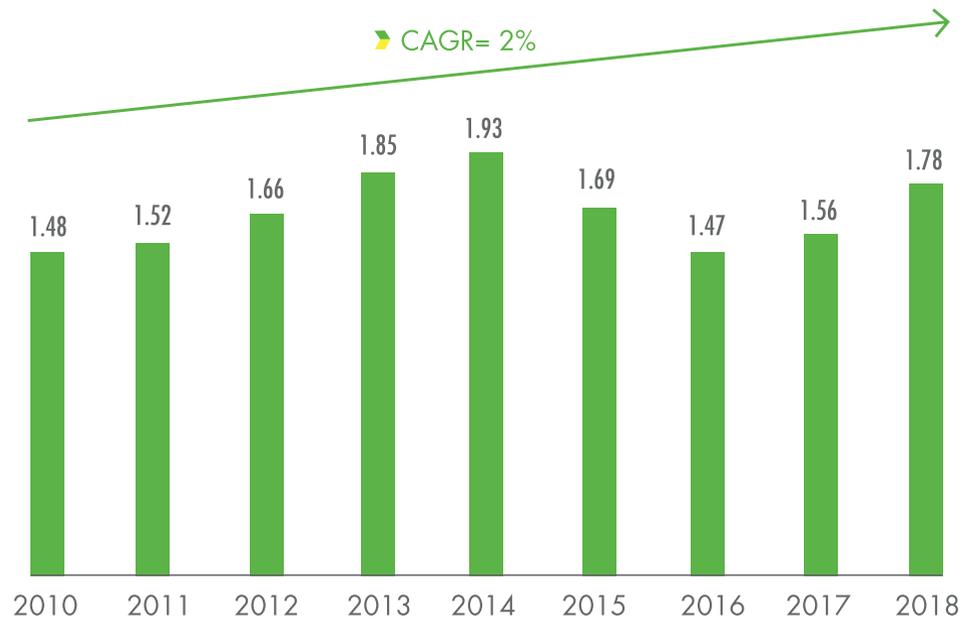
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# SECTOR OVERVIEW

The agricultural sector is one of the pillars of the Lebanese economy, contributing USD 1.8 billion to total GDP (Figure 1) and employing 4% of the Lebanese labor force in 2018<sup>1</sup>. Moreover, the sector is the backbone of Lebanon's Agri-food industry, which contributes to the growth of the local industrial sector.

Although actual growth rates between 2010 and 2018 were relatively low (CAGR=2%) (Figure 1), a sustained agricultural growth is crucial to uplifting the quality of living as well as generating high revenues. The sector represents an important source of income in rural areas where it relies on basic practices and outdated techniques. Nonetheless, many local startups are emerging and adopting new technologies- including Blockchain, Artificial Intelligence and other automation systems.

**Figure 1:** Contribution of the Agricultural Sector to GDP Billion USD | 2010-2018



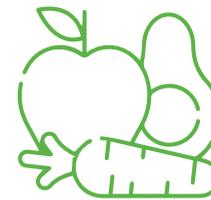
Source: CAS National Accounts Estimates, 2018

<sup>1</sup> Labour Force and Household Living Conditions Survey, 2018-2019, CAS

The Main Agricultural Products can be Broadly Categorized into Six Factions:

- ▶ 01. Vegetables & Edible Vegetables
- ▶ 02. Fruits, Edible Fruits & Nuts
- ▶ 03. Live Animals & Animal Products
- ▶ 04. Unmanufactured Tobacco
- ▶ 05. Cereals Including Cereal Seeds
- ▶ 06. Coffee, Tea, Maté & Spices

## 01. VEGETABLES & EDIBLE VEGETABLES



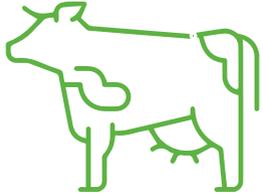
- ▶ **Total Production (2018):** 1,340,443 tons
- ▶ **Top Produces (2018):** Potatoes, Tomatoes, Cucumbers and gherkins
- ▶ **Total Exports (2019):** USD 41.1 million
- ▶ **Top Exports (2019):** Potatoes; Lettuce; Dried leguminous vegetables

## 02. FRUITS, EDIBLE FRUITS & NUTS



- ▶ **Total Production (2018):** 816,800 tons
- ▶ **Top Produces (2018):** Oranges; Apples; Lemons & limes
- ▶ **Total Exports (2019):** USD 77.8 million
- ▶ **Top Exports (2019):** Grapes; Bananas; Apples

### 03. LIVE ANIMALS & ANIMAL PRODUCTS



- ▶ **Total Production (2018):** 410,155 tons
- ▶ **Top Produces (2018):** Milk (fresh cow), Chicken, Cattle Meat
- ▶ **Total Exports (2019):** USD 16.1 million
- ▶ **Top Exports (2019):** Live sheep and goats; Guts, bladders and stomachs for animals; Meat and edible offal
- ▶ **Stock Growth (2010-2018):** 5%

### 04. UNMANUFACTURED TOBACCO



- ▶ **Total Production (2018):** 8,694 tons
- ▶ **Total Exports (2019):** USD 29.6 million
- ▶ **Exports Growth (CAGR; 2013-2019):** 14.7%

### 05. CEREALS



- ▶ **Total Production (2018):** 170,737 tons
- ▶ **Top Produces (2018):** Wheat, Barley, Maize
- ▶ **Total Exports (2019):** USD 18.1 million
- ▶ **Top Exports (2019):** Flour, meal, powder, flakes, granules and pellets; Rice; Wheat and meslin; Cereal goats

### 06. COFFEE, TEA, MATÉ & SPICES

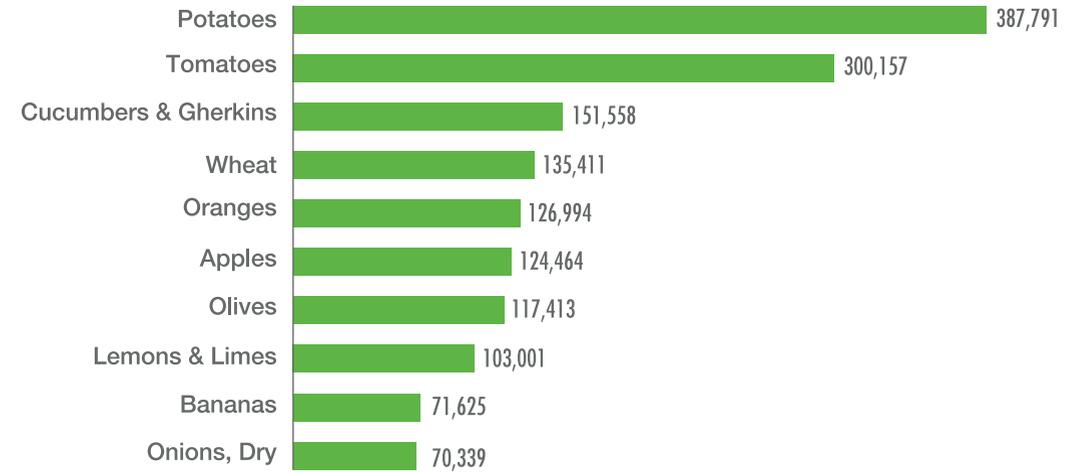


- ▶ **Total Exports (2019):** USD 36,713 million
- ▶ **Exports Growth (CAGR; 2010-2019):** 8.3%

Source: FAO Stat and Lebanese Customs, 2020

In terms of production by product, potatoes rank first with 387,791 tons produced in 2018, followed by tomatoes (300,157 tons) and cucumbers and gherkins (151,558 tons (Figure 2).

**Figure 2: Top 10 Agricultural Products by Production Tons | 2018**



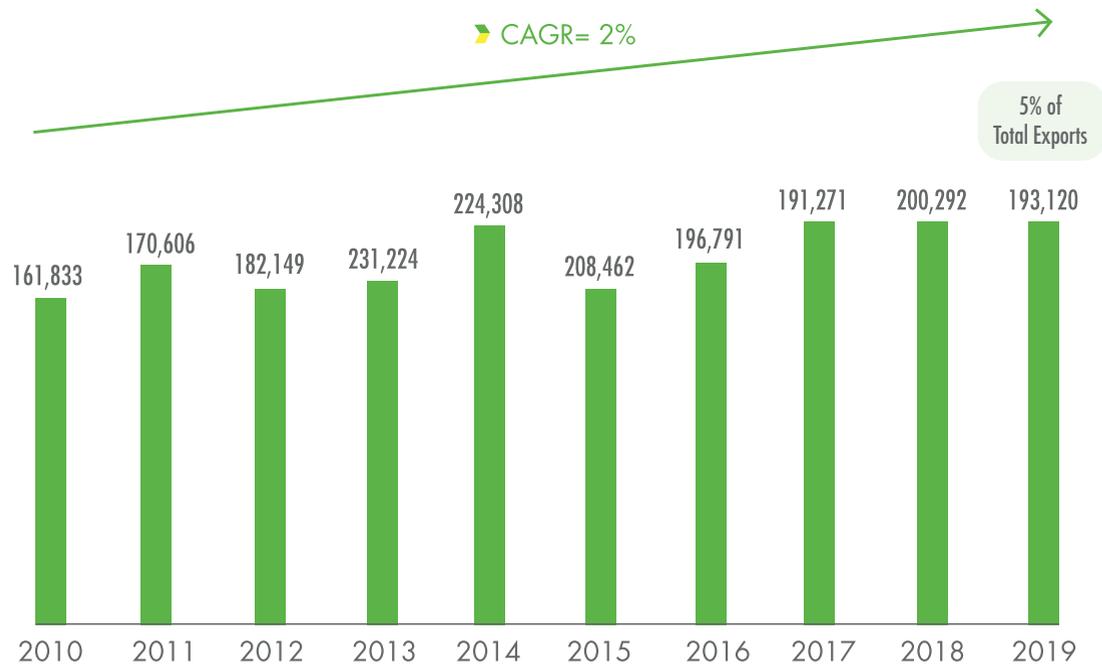
Source: FAO Stat, 2020



# TRADE PERFORMANCE

Lebanese exporters benefit from a strong awareness on product quality and customer satisfaction in regional markets. In 2019, agricultural exports reached USD 193.1 million, growing at a CAGR of 2% during the 2010-2019 period, while the decline between 2014 and 2017 was due to the closure of the border areas with Syria (Figure 3). The sector has the potential to expand widely to global markets if local suppliers adopt international standards and follow export requirements such as SPS and TPT measures.

**Figure 3:** Evolution of Lebanese Agricultural Exports USD Thousands | 2010-2019

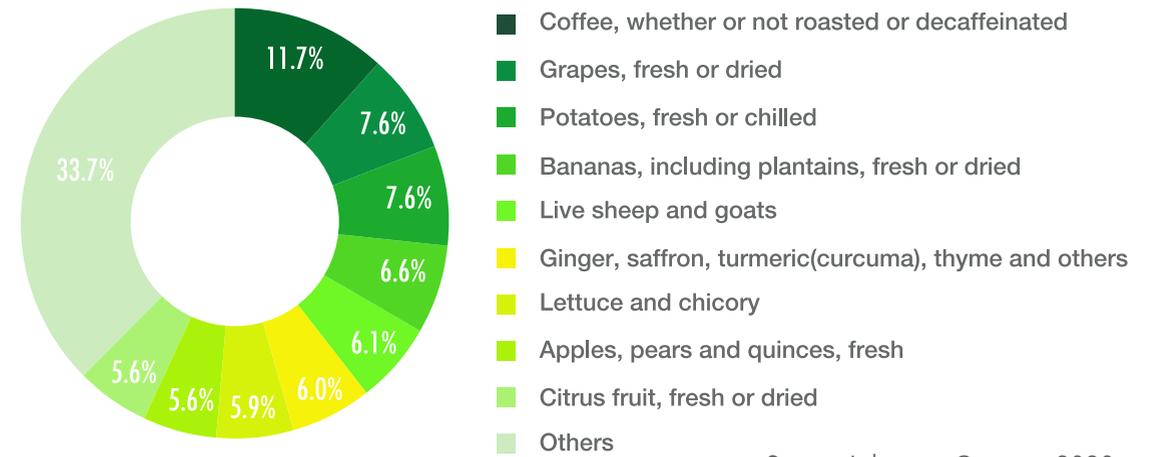


Source: Lebanese Customs, 2020

<sup>2</sup> Lebanese Customs, 2020

By product, coffee grasped the largest share of total crop exports with 11.7% of the total, followed by fresh or dried grapes (7.6%) and fresh or chilled potatoes (7.6%) (Figure 4). It is worth noting that Lebanon remains highly dependent on the import of agricultural products, with imports amounting to USD 1.47 billion in 2019, down from USD 1.64 billion in 2018<sup>2</sup>. Nevertheless, this decline indicates a shift towards local consumption.

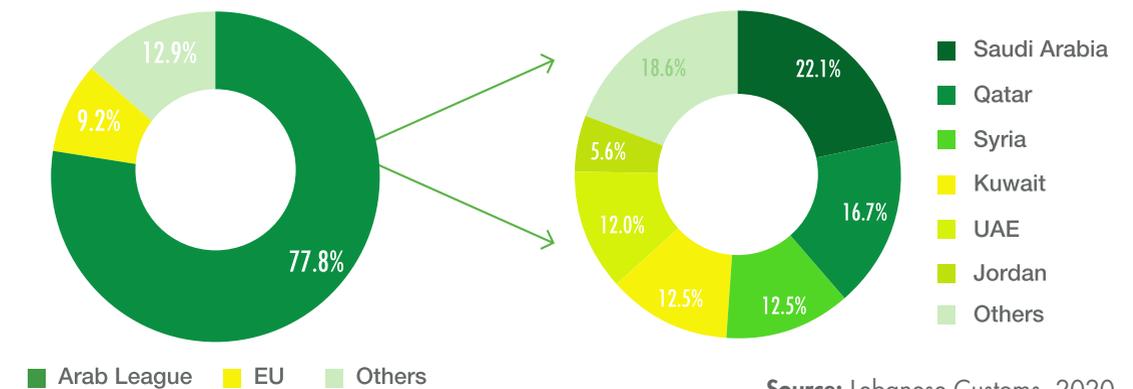
**Figure 4:** Lebanon's Top Agriculture Exports % | 2019



Source: Lebanese Customs, 2020

The largest share of Lebanese agriculture exports goes to Arab countries (mainly GCC) with a share of 77.8% of total exports (figure 5). KSA, Qatar and Syria rank first, second and third respectively within this category. EU countries rank second amongst country groups and occupy 9.2% of total exports, with Germany, Sweden and Netherlands among the top destinations (Figure 5).

**Figure 5:** Top Export Destinations of Lebanon's Agriculture Products % | 2019



Source: Lebanese Customs, 2020

# COMPETITIVE ADVANTAGES

## 01. MAIN GEOGRAPHICAL FEATURES

Lebanon's moderate climate, rich soil, and abundant water resources provide it with the key factors of agricultural production. The country is endowed with the highest proportion of agricultural land in the Middle East with 64% of total land area in 2017<sup>3</sup>.

According to the latest figures of the Food & Agriculture Organization (FAO),

**64%** of Lebanese territory is covered by agricultural areas



14% of the total area of Lebanon is considered arable

Rainfall in the country remains relatively abundant at an average of

**2.2 billion m<sup>3</sup>/yr**

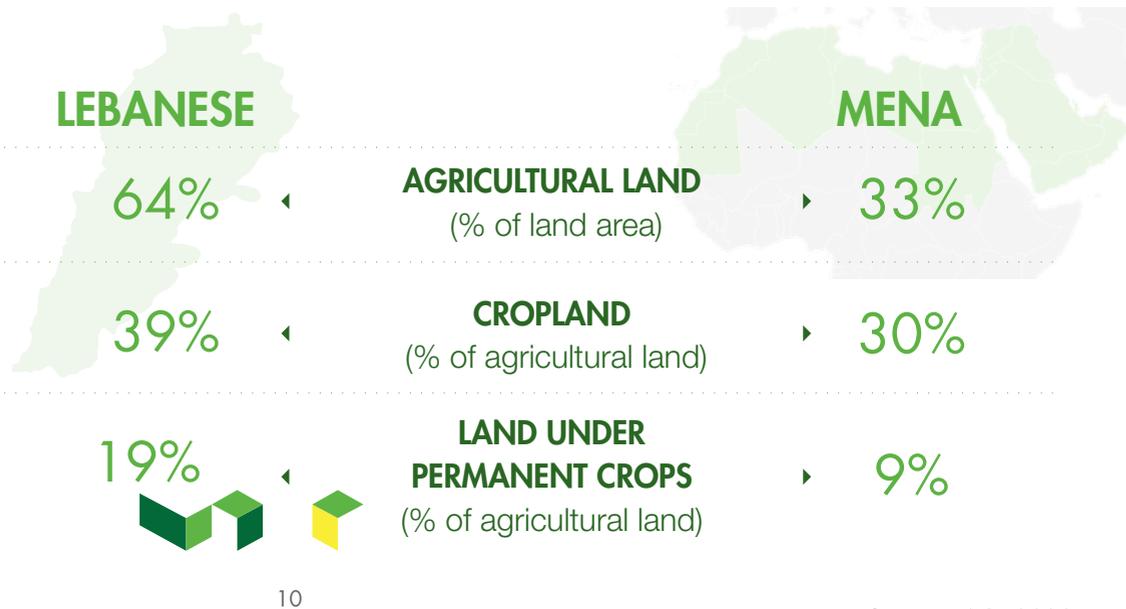
significantly higher than the regional average



The country is also rich with water resources



### Land Use Indicators % of Land | 2017

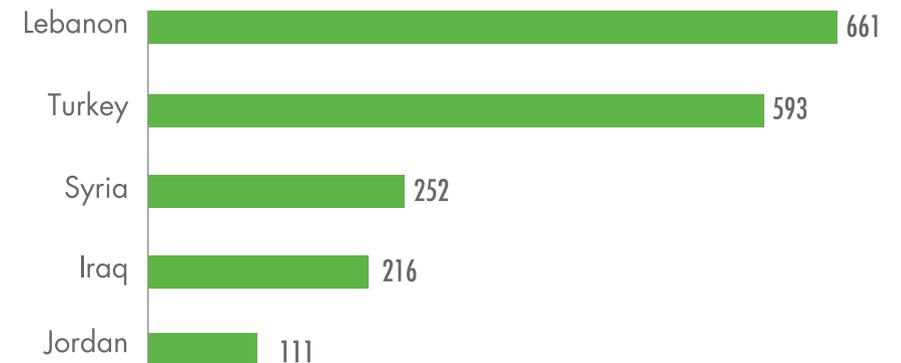


Source: FAO, 2020

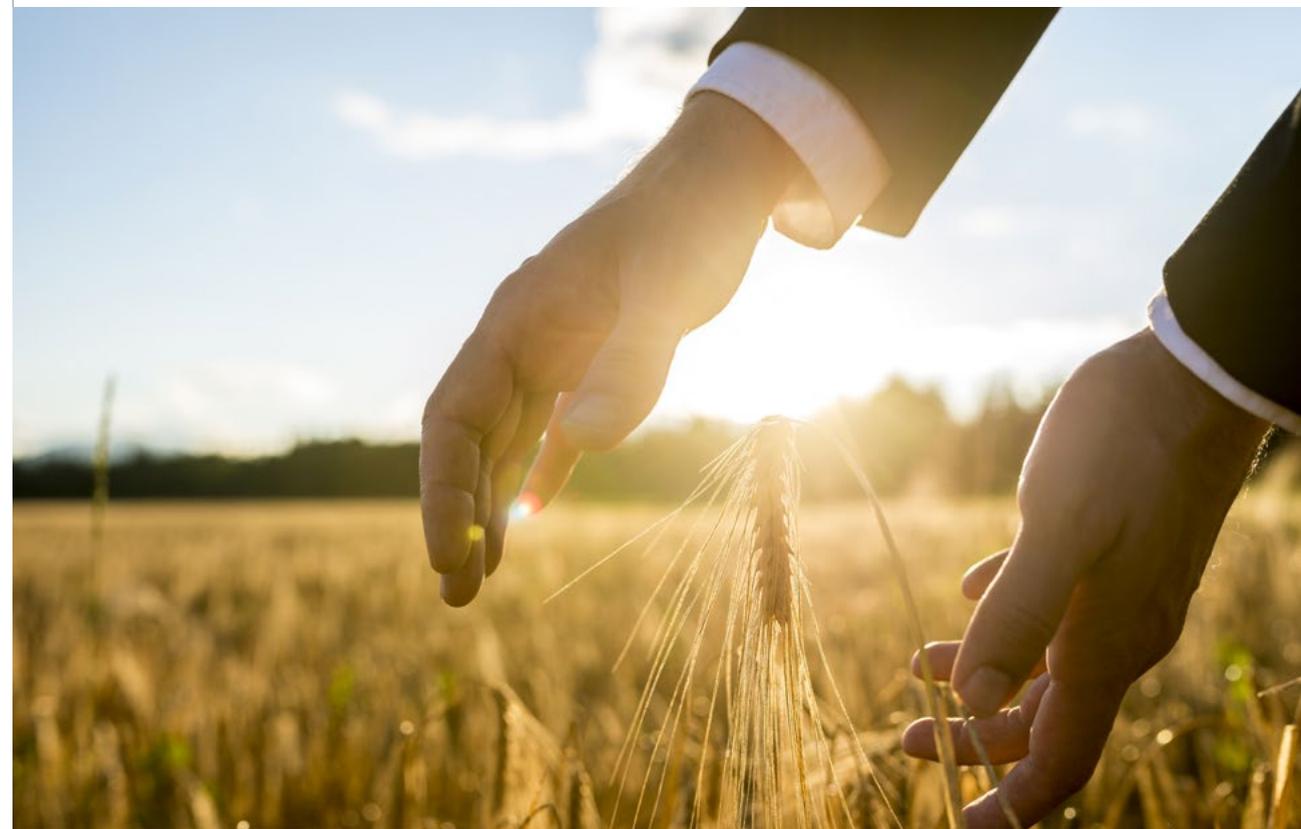
<sup>3</sup> FAO, 2020

The climate is moderate overall and is suitable for the cultivation of a wide variety of crops that would normally grow in both cold and tropical countries (60+ types of crops and 10+ livestock products). Lebanon has the highest precipitation rate among its neighbors, equivalent to 661 mm per year in depth (Figure 6).

Figure 6: Average Precipitation Rate mm in Depth per Year | 2014



Source: World Bank, 2020



## 02. EDUCATED & QUALIFIED LABOR FORCE

Qualified labor force is the cornerstone of the agriculture sector in Lebanon, playing a major role in initiating appropriate technical policies for the development of the sector's value chain.



In collaboration with UNICEF, the Ministry of Agriculture has launched a rehabilitation program of its seven technical and vocational agriculture schools including Al-Abdeh Agricultural School, Khiyam Agricultural School, Baakleen Agricultural School, Rizk Agricultural School, Al-Batroun Agricultural School & Al-Nabatiyeh Agricultural School. The program is funded by the Dutch government with aims to provide appropriate learning conditions for more than 2,000 students enrolled in agriculture-related majors in these schools<sup>5</sup>.

This is in addition to various Lebanese universities offering different degrees in the Agriculture field, including the American University of Beirut (AUB), Saint Joseph University of Beirut (USJ), Lebanese University (LU), University of Balamand and the Holy Spirit University of Kaslik (USEK). Specialized centers such as the Environment and Sustainable Development Unit (ESDU) and the Advancing Research Enabling Communities Center (AREC) at the American University of Beirut offer facilities for the development of the agriculture sector including research and training.

In 2017-2018, 4,210 students enrolled in higher education programs in agriculture, fishing and veterinary sciences (2% of total); 30,225 in engineering, industrial transformations and production (14%) and 6,769 in IT and telecom programs(3%)<sup>4</sup>.

Lebanese young talent has the potential to shift the agricultural sector away from its traditional era into the agricultural digital revolution. The digitalization process and the implementation of innovative technologies require the knowledge of IT experts combined with the know-how of agricultural engineer.



<sup>4</sup> Center for Educational Research and Development (CERD), 2019

<sup>5</sup> <https://www.unicef.org/lebanon/press-releases/ministry-agriculture-rehabilitate-its-agriculture-schools>

## 03. INTERNATIONAL TREATIES & AGREEMENTS

International agreements set opportunities for Lebanese exporters to access external markets including EU and Arab countries and to potentially improve their quality of crops. These treaties including Lebanon Association Agreement, EFTA, GAFTA and others have had a considerable positive impact on the Lebanese agricultural exports as shown in the figures below.



Source: Lebanese Customs, 2020

# SUPPORT TO THE SECTOR

► **The Agricultural Research Institute of Lebanon (LARI)** is a governmental organization under the Minister of Agriculture Supervision that has eight experimental stations and conducts applied and basic scientific research for the development and advancement of the agriculture sector in Lebanon.

[www.lari.gov.lb](http://www.lari.gov.lb)

► **The Investment Development Authority of Lebanon (IDAL)** is the national investment promotion agency under the Authority of the Council of Ministers that supports, promotes and retains investments in productive sectors.

[www.investinlebanon.gov.lb](http://www.investinlebanon.gov.lb)

## 01. TAX INCENTIVES:

offers tax breaks for up to 10 years, as well as other incentives to local and foreign companies operating in the agriculture sector and meeting specific requirements.

## 02. "AGRI-PLUS" PROGRAM:

provides exporters with financial incentives to export their products and to participate in international fairs.

## 03. BUSINESS SUPPORT UNIT (BSU):

founded in 2018, the BSU provides startups operating in productive sectors including agriculture with free legal and tax/accounting advice as well as licensing support

► **Agrytech** Incubator founded in 2017 and managed by Berytech, it is the first incubator providing business coaching, technical & financial assistance and industry connections to new and existing businesses that are operating in the agri-tech sector. It is funded by Berytech and the Embassy of the Netherlands.

[www.agrytech.org](http://www.agrytech.org)

► **Ministry of Agriculture** supports Lebanese farmers all over Lebanon through different projects, whether in collaboration with international organization or implemented by the ministry's experts. These projects include the development of grain cultivation in South Lebanon, vaccination of livestock and horses against epidemics, development of the bee sector in Lebanon and others.

[www.agriculture.gov.lb](http://www.agriculture.gov.lb)

► **Kafalat** Agriculture Programme provides loan guarantees up to LBP 480 million which can help small farmers and established agricultural companies to fund their businesses. This is in addition to other innovative, start-ups and SME programs that could serve the sector. [www.kafalat.com.lb](http://www.kafalat.com.lb)

# INVESTMENT OPPORTUNITIES

## 01. AGRITECH:

Automation and high technology will reshape the future of the agricultural sector in Lebanon, promising higher productivity and better output. These new advanced techniques ranging from blockchain, artificial intelligence, internet of things to drones and robotics, are transforming the agriculture value chain into smart farming. In Lebanon, many successful startups adopted these new technologies, making the process more efficient and productive and leaving ample opportunities for farmers to expand their production, as well as exports.



► one-shot laser technology that eliminates weed



► Technology that helps beekeepers to manage and monitor honey production.



► Grapak: Micro-technology that turns grape leftovers and natural fibers into eco-friendly packages.

## 02. POST-HARVEST INFRASTRUCTURE:

There is a need to build packaging and cold storage facilities in high standards to meet the market demand while taking into consideration the industry's best practices and regulations. The use of these facilities are critical factors in the shelf-life of agricultural products as it minimizes losses. In Lebanon, we have more than 200 packaging centers concentrated in Bekaa and North Lebanon with only 5% certified<sup>6</sup>.



CMA CGM has developed the first dry port in Lebanon, located in Bekaa as a key initiative to support Lebanese fruits and vegetables producers and accelerate the development of agriculture in the country. The Dry Port offers storage, warehousing and handling which creates opportunities for additional trade business to/from the Bekaa region.

<sup>6</sup> IDAL's Calculations, 2019

# POTENTIAL CROPS

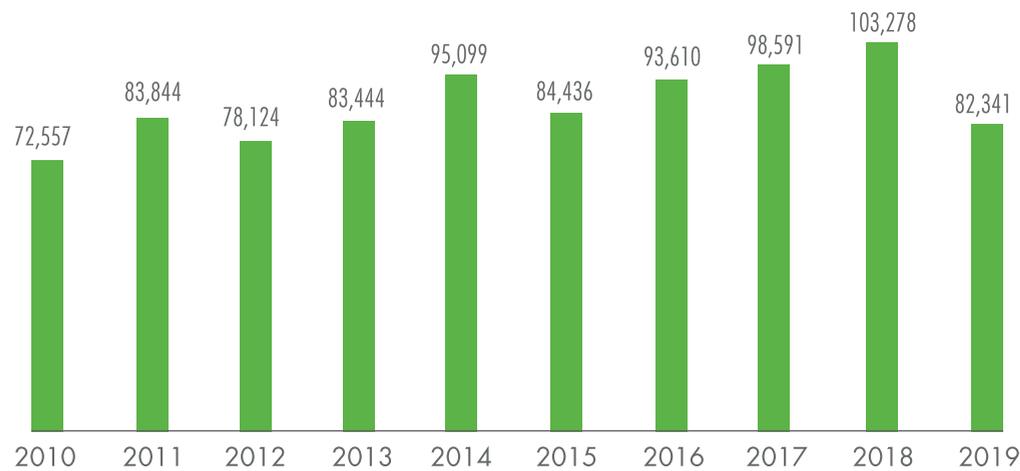
## 03. AQUACULTURE:

Aquaculture activities are mainly located in Bekaa, Akkar, Mount Lebanon and South Lebanon. However, the fish production is far below the potential capacity that could be attained through implementing new farming systems such as Recirculating Aquaculture System (RAS). Imports of fish and aquatic products reached USD 82.3 million in 2019, growing at a CAGR of 1.4% during 2010-2019 which indicated ample opportunities for local farmers to increase and upgrade their production (Figure 7).



Source: Lebanese Customs, 2020

Figure 7: Evolution of Fish and Other Aquatic Imports Thousand USD | 2010-2019



Source: Lebanese Customs, 2020

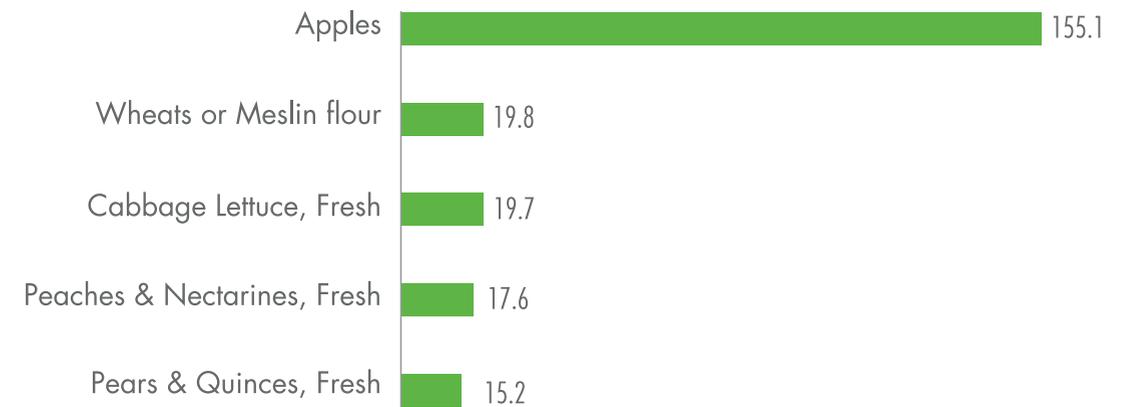
## 01. UNTAPPED POTENTIAL PRODUCTS

Lebanon’s agricultural sector has the potential to become an export-oriented market once automated systems and new technologies are adopted by local farmers. Locally produced products could be further developed to foreign markets in line with consumer demand for higher added-value quality foods. Therefore, new agricultural policies should be designed to ensure export stability, demand development for local commodities and the introduction of new products in both local and foreign markets.

With the aim to support Lebanese farmers in accessing new markets, we have identified a list of agricultural products with untapped potential, along with their respective untapped markets.

Top prospective export-oriented products include apples (USD 155.1 million), wheat and meslin flour (USD 19.8 million), cabbage and lettuce (USD 19.7 million), peaches and nectarines (USD 17.6 million) and pears and quinces (USD 15.2 million) (Figure 8).

Figure 8: Top 5 Untapped Potential Products Million USD | 2019



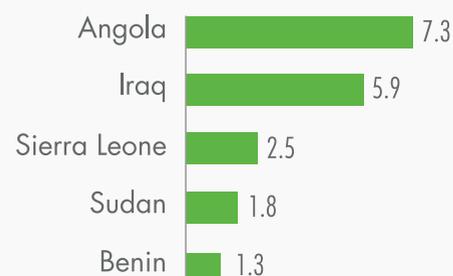
Source: International Trade Center, Trade Potential Map, 2019

Figure 9: Top 5 Untapped Markets by Product Million USD | 2019

## 01. APPLES



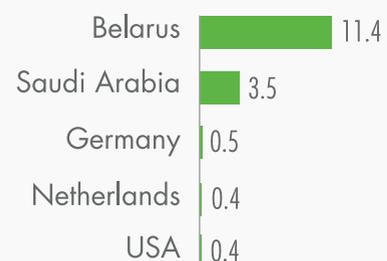
## 02. Wheat & Meslin Flour



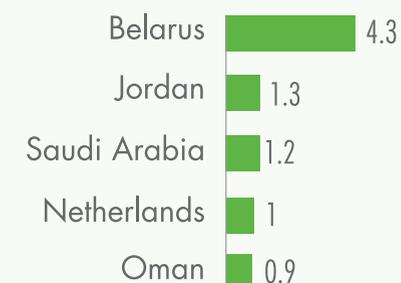
## 03. Cabbage Lettuce, Fresh



## 04. Peaches & Nectarines



## 05. Pears & Quinces, Fresh



Source: International Trade Center, Trade Potential Map, 2019

## 02. HIGH-VALUE CROPS

Lebanese farmers should proactively produce more high-value crops while focusing on reaching potential countries that are invested in importing those types of produce. Among such crops are tomatoes, avocados, almonds, livestock and others (Table 1).

High-Value Crops	Production (Tons)	Exports Thousand USD	Export Value (USD/Ton)	Potential Destinations for Additional Exports
STRAWBERRIES	1,614	31	2,067	Belarus, Malaysia, Oman, Romania, Vietnam
TOMATOES	291,839	781	958	Azerbaijan, Bahrain, Bangladesh, Belarus, Bulgaria
ALMONDS, WITH SHELL	30,381	362	945	Bulgaria, Pakistan, Qatar, Turkey, Vietnam
AVOCADOS	8,946	785	862	China, Czech Republic, Germany, South Korea, Spain
BANANAS	62,352	12,608	502	Colombia, Netherlands, Qatar, Romania, Tunisia
GRAPES	74,140	9,386	433	Argentina, Armenia, Bangladesh, Kyrgyzstan, Myanmar
LEMONS AND LIMES	105,458	945	301	Azerbaijan, Bulgaria, Jordan, Malaysia, Qatar
POTATOES	384,259	30,480	239	Belgium, Netherlands, Spain, Germany, USA
ORANGES	159,642	7,672	222	Azerbaijan, Morocco, Myanmar, South Africa

Source: FAO, Mckinsey, UN Comtrade and IDAL's Calculations

# USEFUL ADDRESSES & CONTACTS

Ministry of Agriculture-MoA  
[www.agriculture.gov.lb](http://www.agriculture.gov.lb)

Ministry of Economy & Trade-MoET  
[www.economy.gov.lb](http://www.economy.gov.lb)

Investment Development Authority  
of Lebanon-IDAL  
[www.investinlebanon.gov.lb](http://www.investinlebanon.gov.lb)

The Federation of the Chambers  
of Commerce Industry & Agriculture  
in Lebanon  
[www.cci-fed.org.lb](http://www.cci-fed.org.lb)

Beirut & Mount Lebanon  
[www.ccib.org.lb](http://www.ccib.org.lb)

Tripoli and North Lebanon  
[www.cciat.org.lb](http://www.cciat.org.lb)

Saida and South Lebanon  
[www.ccias.org.lb](http://www.ccias.org.lb)

Zahleh and Bekaa  
[www.cciaz.org.lb](http://www.cciaz.org.lb)

Industrial Research Institute-IRI  
[www.iri.org.lb](http://www.iri.org.lb)

Quality Programme-QUALEB  
[www.qualeb.org](http://www.qualeb.org)

Lebanese Standards Institution-  
LIBNOR  
[www.libnor.org](http://www.libnor.org)

Lebanese Agricultural Research  
Institute (LARI)  
[www.lari.gov.lb](http://www.lari.gov.lb)

National Council for Scientific  
Research Lebanon  
[www.cnrs.edu.lb](http://www.cnrs.edu.lb)

KAFALAT s.a.l Loan guarantee  
company  
[www.kafalat.com.lb](http://www.kafalat.com.lb)

Lebanese Customs  
[www.customs.gov.lb](http://www.customs.gov.lb)





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