

AGRICULTURAL AND AGRI-FOOD INDUSTRY IN IRAN

Third quarter 2021

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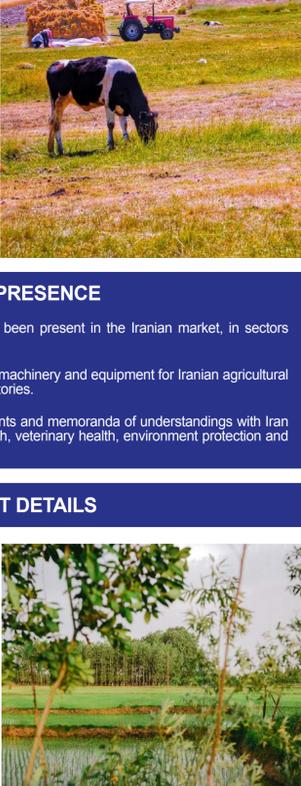
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Paddy field, Gilan Province, North Iran

EUROPEAN PRESENCE

Major European agricultural players have for long been present in the Iranian market, in sectors ranging from raw commodities to processed goods.

EU firms are also favoured suppliers of agricultural machinery and equipment for Iranian agricultural producers wishing to modernise their farms and factories.

Several EU member states have bilateral agreements and memoranda of understandings with Iran on sustainable agriculture, plant protection, research, veterinary health, environment protection and joint production of seeds.

KEY MARKET DETAILS

Population of **84 million**

Average of **€8.9bn** of agricultural imports (**€689m** from the EU in 2020)

2nd Middle Eastern Market for Agricultural Technology

Yearly production of **125 million tons** of agricultural goods

Exports of **8.8 million tons (€5.1bn)** between March 2020 and March 2021

Top 5 Global Producer of Saffron, Pistachio, Date, Sour Cherries, Almond, Walnut, Aubergine, Apple and Apricot.



Paddy field, Gilan Province, North Iran

KEY STAKEHOLDERS

There is a wide variety of agricultural stakeholders in Iran. Around 80% of farmers have land smaller than 10 hectares, which makes up about 40% of the cultivated land surface, but most of the agricultural output comes from larger farms.¹ While 50% of the sector is privately held,² most of the production is under the control of public or semi-public entities including rural cooperatives established by the state³ and linked to the Central Organisation for Rural Cooperatives of Iran. The Ministry of Agricultural Jihad is the main actor in Iran's centrally-planned agro-economy. Several organisations affiliated to it and to the Ministry of Industry, Mining and Trade take the role of key regulators and traders, with the Veterinary Organisation of Iran controlling and testing livestock for imports, Iran Fisheries (Shilat) responsible for the import of equipment for fisheries, the Government Trading Company (GTC) which is the main importer of essential agricultural items, the Land Affairs Organisation which takes care of land registration and permits for its usage, as well as the Centre for Agricultural Cultivation, Extension and Services which supervises and distributes seed, fertiliser, and pesticide imports.⁴ Additionally, the Trade Promotion Organisation (TPO)⁵ and the Chamber of Commerce, Industries, Mines, and Agriculture (CCIMA) are involved in developing agricultural trade.

An example of semi-public entities active in the agricultural sector is the Astan-e-Qods-e-Razavi Foundation (Bonyad) which has established many well-endowed agricultural companies throughout Iran.⁶ An example of prominent public firms is the Iran Tractor Manufacturing Company. The larger agricultural companies are known as Agri-Industrial Companies (Sherkat Kasht-o-Sanat), such as **Moghan Agro-Industrial and Livestock Company**, which has been privatised in 2020 following the trend of privatisation in Iran's agricultural sector.⁷ Other companies such as **Karun Agro-Industrial Company** and **Seamorgh** are respectively the largest cane producer and largest poultry farm in the Middle East. Finally, the country has several associations of producers and importers in the field of agriculture: Aquatics Production & Trade Union of Iran (<http://seairan.com/>), Cold Water Fish Aquaculture Centre of Iran (<http://www.sardabi.ir/>), Iran Protein Producers Syndicate (<http://www.irpps.ir/>), Iran Dried Fruit Exporters Association, Iran Pistachio Association (<https://www.iranipistachio.org/>), Greenhouse Producers Association of Iran, Association of Tractor Manufacturers (<https://www.atmak.ir/>)...

STATE POLICY ON AGRICULTURE

For various reasons, including geopolitical concerns and volatility in commodity prices, the Islamic Republic of Iran has actively sought to increase the level of self-sufficiency in agricultural production, particularly since the 1990s. Accordingly, Iranian poultry rose from 20 million tons in 1979 to more than 126 million in 2020⁸ thanks to a combination of subsidies to farmers, infrastructure development, and protectionist trade policies. In fact, Iranian farmers have for long had access to subsidised machinery, fertilisers, pesticides, animal feed, seeds, water, and electricity in addition to benefiting from import bans during harvest seasons and price floors for about 18 strategic crops including wheat and rice.⁹ Financing in the agriculture sector has mainly been state-driven with the Government and

the state-owned Agriculture Bank of Iran (Bank Keshavarzi) offering low-interest credit loans to farmers while the Agriculture Insurance Fund provides pensions and crop insurance coverage. In view of protecting local production, high levels of tariff protection are imposed on imports, with increasing rates depending on the level of processing for the imported goods so as to bolster bulk imports and encourage domestic food processing, packing and repackaging.¹⁰ During periods of shortages, regulations and tariffs can be lifted to ensure a sufficient and affordable supply for domestic consumption as seen in mid-2021 with the parliamentary agricultural commission's decision to allow the monthly import of 20-million-day-old chickens.¹¹

Fig. 1. Iran's Import Duties for key Agricultural Products

Product	Import Duty (range depending on type)
Wheat	10-20%
Rye	32%
Barley, Oats, Maize, Soybeans	5%
Linseed, Rape or Colza Seeds	5-10%
Rice	1-5%
Worked Cereals (rolled and flaked grains) and Flours	26-55%
Live Bovine Animals and Live Sheep/Goats	5%
Live Poultry	5-55%

The country manages to produce 80% of its needs for agricultural goods¹². However, Iran's agriculture remains vulnerable to environmental risks¹³ and suffers from low levels of investment which explain the backlog in terms of mechanisation and irrigation. Iran has 1.1 horsepower per hectare¹⁴, compared to 5 on average in the EU, and only half of its arable land is irrigated – often with techniques that have high water-loss¹⁵. Subsidies have also created price distortions whilst inadequate supply chains have failed to improve farmers' livelihoods and caused waste of agricultural products to amount to 25 million tons per year.¹⁶ The government is aware of the environmental and logistical challenges facing Iran and efforts are pursued to improve

land management, foster greenhouse cultivation, develop mechanisation and pressurised irrigation systems, as well as empower farmers by limiting the power of brokers and improving their access to finance and insurance.

Iran is currently facing one of its worst draught years and local authorities in several provinces have already applied restrictions on the use of water for 2021: the southwestern province of Khuzestan, which produces 14% of Iran's total production has put off rice cultivation¹⁷ and the northern province of Golestan has advised to cut agricultural area under cultivation by at least 20% due to dam levels being at 30% of reservoir capacity¹⁸.

AGRICULTURAL PRODUCTION

Iran benefits from various climate conditions which allow the production of a diverse range of agricultural products, with the Caspian coast offering a sub-tropical climate and upward of 600mm of rainwater per year¹⁹. Nonetheless, there are several obstacles to the development of agriculture in Iran. The country is mostly dry semi-arid, with an average of 250mm of rainwater per year – amounting for only 30% of the global average. With 90% of total water usage, the agricultural sector in Iran has not managed to raise its efficiency and remains sensitive to climate developments. Most farmers maintain out-of-date irrigation methods such as flooding or transporting water from wells. Unsustainable water management means that 34% of irrigated lands are now located in areas where groundwater is in critical stress²¹. Additionally, climate change is further exacerbating difficult local conditions as warming temperatures create evaporation twice the global average and the overuse of groundwater complicates land salination and erosion, with up to 3.5 billion tons of soil being eroded per year²².

18.5 million hectares mainly located in the west, northwest, and northeast. Of the average 125 million tons of agricultural products produced each year, 62 million tons are crops, 25 million tons are vegetables and plants, 22 million tons are fruits, and 16 million tons are aquatic and livestock products. Due to their importance for self-sufficiency, cereals and wheat are planted on two thirds of cultivated lands and have good albeit varying degrees of efficiency with wheat yields averaging a little more than 2 tons per hectare, which is comparable to Russia or Australia, and barley yielding 1.9 tons per hectare compared to 3.5 tons in the United States²³. Other water-intensive crops such as corn and rice are not produced in sufficient quantities despite their respectively important role in livestock feed and Persian cuisine, thus showing that the country faces trade-offs in terms of domestic production and imports. With about 2 million hectares, horticulture is grown with a focus on export markets due to its high-value and benefits from irrigation levels of 92%, compared to less than 50% for temporary crops²⁴. Other products such as milk are also produced in sufficient quantity, about 11 million tons per year, to allow for substantial exports of dairy to neighbouring countries²⁷. However, livestock and fish output struggles to compete with local demand and export bans are often issued for white and red meat.

Due to an urbanisation rate of 75% and the prevalence of services, manufacturing and energy in the national economy, agriculture contributes to only 10% of the Iranian GDP and employs 4.3 million people – about 17% of the labour force. Only 12% of the country's land is cultivated, representing

Fig. 2. Iran's production of key agricultural products in 2020

Product	Production (in tons)	Global rank
Saffron	500	1
Pistachio	315,000	2
Dates	1,150,000	2
Apricot	306,000	2
Cherry	221,000	3
Almond	200,000	5
Watermelon	3,813,000	3
Cucumber	1,710,000	4
Apple	3,200,000	4
Walnut	200,000	4
Figs	80,000	4
Potato	5,100,000	13
Aubergine	735,000	5
Wheat	14,000,000	9
Barley	3,400,000	14
Tea	100,600	7

pesticides at a rate of 25%²⁷. Growing demand and environmental strains on domestic production is also likely to lead to more imports of agricultural goods in the future, especially for crops like wheat, whose annual consumption of 110kg per capita for bread is nearly twice the world average²⁸.

AGRICULTURAL CONSUMPTION

Iran has good fundamentals for food consumption growth. Its population of 84 million people is in majority constituted of people aged 25 to 50, and about 1 million people are added to the demographic each year²⁹. However, the country has lately faced an annual inflation rate of 30% to 40% which has affected Iranians' purchasing power. Since 2018, real disposable incomes for most consumers have fallen and families have cut on expensive food products. For instance, mutton meat consumption

has dropped from 12kg to 8kg per capita over the last two years³⁰ whilst rice consumption has seen a decrease of 20%³¹. This has also meant that substitutes have been found by consumers, with chicken meat consumption of 32kg per capita being around twice the global average³². Unstable food prices and supply disruptions are also the result of inefficient distribution channels, whereby several intermediaries are placed between the farmer and the retail market³³.

Fig. 3. Prices of processed agricultural products on the market for Iranian consumers

Product	Price in March 2017 (IRR)	Price in March 2019 (IRR)	Price in mid-2021 (IRR)
1l Bottle of milk	28,000	45,000	71,000
1kg Red meat (Sheep)	394,000	950,000	1,200,000
1kg Chicken	88,000	168,000	350,000
1kg Rice	120,000	195,000	260,000
1kg Bananas	38,500	137,000	310,000
1kg Apples	110,000	115,000	139,000

The country's demand for livestock products does not allow for enough animal feed to be produced domestically. As a result, the country imports annually 16 million tons of animal feed out of 21 million tons consumed³⁵. Iran is also heavily reliant on imports for other agricultural inputs, such as chemical fertilisers at a rate of 43%³⁶ and

pesticides at a rate of 25%³⁷. Growing demand and environmental strains on domestic production is also likely to lead to more imports of agricultural goods in the future, especially for crops like wheat, whose annual consumption of 110kg per capita for bread is nearly twice the world average³⁸.

IRAN'S AGRICULTURAL TRADE WITH THE WORLD

Compared to its neighbours such as Iraq and the Gulf Cooperation Council countries who depend on agri-food imports for 50% to 90% of their needs, Iran's scope for agri-food trade is more limited. Nonetheless, the country has imported on average €8.9bn of agricultural products between 2009-2019³⁹ and has exported 8.8 million tons of agricultural products for a value of €5.1bn for the period March 2020-March 2021 (Persian Year 1399). This represents an export increase of 7.2% in value and 24.9% in volume compared to the previous year⁴⁰. Although Iran's agricultural trade balance remains negative and export levels have not reached former records, the latest numbers demonstrate a recovery of Iran's agricultural export sector after several years of slump. The country has also managed to diversify export markets and numbers show that between March and August 2021, Iraq was the first destination (accounting for 35.1% of Iran's exports), followed by Afghanistan (15%) and the United Arab Emirates (7.6%)⁴¹. In turn, 16.8% of Iran's imports came from Turkey, followed by India (14.5%), the United Arab Emirates (mainly re-exports, 13.4%), the Arab Kingdom (10.9%),

the Russian Federation (10.5%), the Netherlands (6.5%) and Germany (4.5%). As expected, Iran's exports are mainly horticultural, with pistachios, dates, watermelons, apples, tomatoes being the top exports in value⁴².

Agricultural trade remains strategic for Iran as the sector accounted for 18% of Iran's exports in March 2020-March 2021⁴³ and is perceived as a growth sector able to boost the country's non-oil exports. More importantly, agricultural imports are a priority for the Iranian government, as such products were allocated 71% of subsidised currency for basic goods over the same period – worth €5.2bn⁴⁴. Corn is the most important agricultural import of Iran as a large share of it is used for animal feed, followed by barley, seed oil, wheat, and fertilisers⁴⁵. Europe still maintains a good position in Iran's agricultural imports but there is increasing agricultural trade between the Eurasian Economic Union and Iran as a result of their preferential trade agreement which entered into force in October 2019⁴⁶.

TRADE BETWEEN EUROPE & IRAN

Despite the Covid-19 outbreak, EU agri-food exports to Iran increased by 19% in 2020 compared to the preceding year. The sector represents a little over 18% of European exports to Iran and reached a value of €698 million⁴⁷.

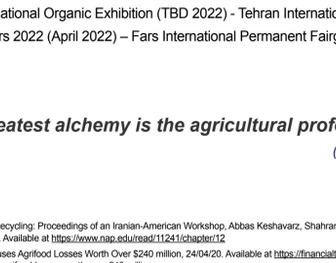
Fig. 4. Top EU agri-food exports:



In 2020, wheat exports experienced the most dynamic growth by far with an increase of more than 1500% compared to 2019. EU exports of sugar, other than beet & cane also increased by 14%, while gums, resins and plant extracts increased by 11%. On the other hand, EU exports of cereals other than wheat and rice decreased by 24%, oilsseeds other than soya beans dropped by 41%, and live animals by 43%.

For Iran, agri-food represents 57% of its exports to the EU which grew by 32% in 2020 to reach €355 million.

Fig. 5. Top Iranian agri-food exports:



In 2020, exports of fruits & nuts experienced a 70% increase compared to 2019 and exports of products of animal origin grew by more than 20%. However, exports such as edible vegetables and roots dropped by 50%, coffee and tea by 15%, and lacs, gums, resins and other vegetal saps by 19%.

OPPORTUNITIES & CONSIDERATIONS FOR EU EXPORTERS

Although the Iranian Government puts great emphasis on self-sufficiency and agricultural output growth, this does not mean that the market is bereft of opportunities for EU companies. Quite the contrary, Iran will not only continue to import water-intensive crops that it cannot sustainably produce domestically, but it is also in need of European know-how and technology to modernise its agricultural sector and adapt to its changing climate. Despite having several domestic manufacturers of agricultural machinery, the Iranian market needs an update with the newest technologies to optimise the mechanisation of its farms⁴⁸. More importantly, green technologies and systems that can reduce the consumption of natural resources, in particular water, are an increasing priority for authorities as the country seeks to increase agricultural productivity⁴⁹. Countries such as Spain, Portugal, and the Netherlands which have both or either

experience in greenhouse cultivation and innovation under environmentally challenging conditions are particularly well-positioned to enter the market. Agricultural science is also a potential area of cooperation as climate mitigation and adaptation requirements will push Iran to research and adopt suitable seeds as well as reduce pollutants and pesticide remnants. European assistance is also likely to be sought after to improve Iran's agro-production chains to increase productivity and help both Iranian farmers and consumers get better prices⁵⁰. Modern agriculture techniques and machinery are all areas in which European SMEs have an edge. Finally, as aforementioned, goods such as corn, soybean, soy meal, raw vegetable oils, trout, organic lamb, sheep meat, wheat, chicken, cornflour, raw sugar, butter, and fertilisers are all currently in high demand in the country⁵¹.

IDENTIFYING IRRADIATION SEGMENTS FOR EUROPEAN SMEs

- Scientific cooperation (plant protection, climate adaptation, drought-resistant crops and production)
- Consulting and services to improve agro-production chains
- Seeds, seedlings, stable equipment
- Agricultural machines, farming tractors, harvesting equipment
- Automation systems
- Dryers, cleaner, silos and storage systems
- Feeding equipment, fish farming equipment
- Grains, grain systems
- Greenhouse and greenhouse plastics and equipment
- Irrigation systems
- Sustainable agriculture (hydroponics)
- Livestock and poultry breeding
- Milk processing equipment
- Milling and mixing installations/equipment
- Pesticides and fertilisers
- Veterinary syringes

UPCOMING INTERNATIONAL EXHIBITIONS⁵²

- 20th International Exhibition of Poultry, Livestock and Related Industries (IRAN PLEX) (30 July – 2 August 2021) – Tehran International Exhibitions.
- 13th Cereals, Flour, and Bread Industry International Exhibition (IBEX) (13-16 September 2021) - Tehran International Exhibitions.
- 5th Green Iran International Exhibition for Gardening, Flowers, Plants, and the Greenhouse Industry (13-16 September 2021) - Tehran International Exhibitions.
- 20th Sweets and Chocolate, Machinery and Biscuits' Raw Material Exhibition (13-16 September 2021) - Tehran International Exhibitions.
- 28th Tehran International Exhibition of Agricultural, Food, Machinery and Related Industries (22-25 September 2021) - Tehran International Exhibitions.
- 2nd International Exhibition of Horticulture, Greenhouses, Inputs and Related Machinery and Equipment and 4th International Exhibition of ATMAK-IFarm Agricultural Machinery and Equipment (2-5 November 2021) – Shah-e-Afshar International Exhibition Centre in Tehran.
- 4th International Exhibition of Halal Protein Products and Related Industries (IranMeatEx) (16-19 November 2021) - Tehran International Exhibitions.
- 5th International Exhibition of Agricultural Machinery, Inputs, and Innovative Irrigation Systems (5-8 December 2021) - Tehran International Exhibitions.
- 6th International Exhibition of Fisheries, Aquaculture, Fishing, Seafood and Related Industries (IFEX) (19-21 October 2021) - Tehran International Exhibitions.
- INTFOODEX – Exhibition of Medicinal Plants, Nuts, Saffron, Related Technology and Industrial Services (7-10 February 2022) - Tehran International Exhibitions.
- 7th International Exhibition of Dried Fruits, Dried Nuts and Related Industries (2-5 January 2022) - Tehran International Exhibitions.
- 15th Tehran International Organic Exhibition (TBD 2022) - Tehran International Exhibitions.
- Agrotech-Agropros 2022 (April 2022) – Fars International Permanent Fairground of Shiraz.

«The greatest alchemy is the agricultural profession.»

(Imam Ja'far al-Sadiq)

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