

3rd Edition
2022

IRAN ANIMAL FEED MARKET



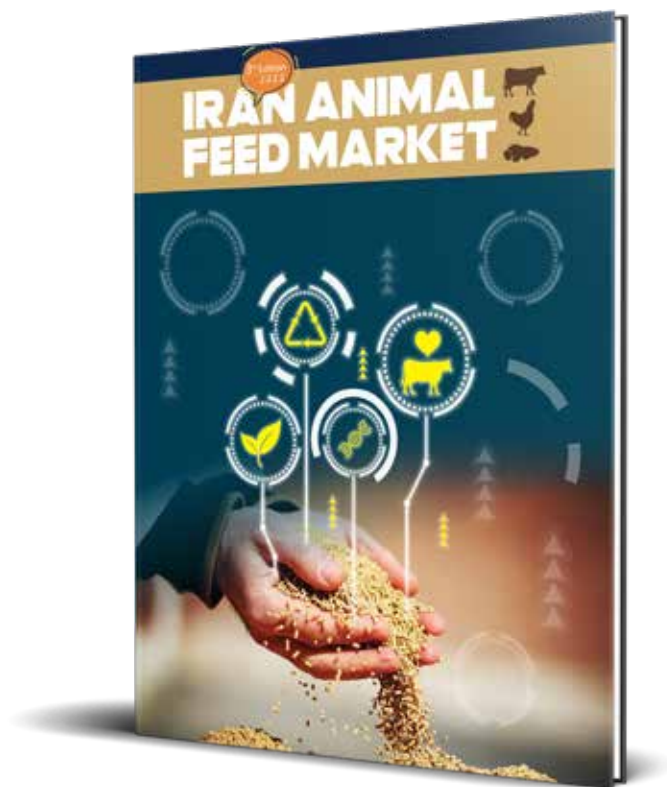
IRAN ANIMAL FEED MARKET

3rd Edition, 2022



Iran Feed Industry Association





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Special thanks to: Amin Dindar safa, Dr.Hasan Mehrabani Yeganeh and other colleagues who helped us in collecting and publishing this book.

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FOREWORD

Now, after 20 years of the third millennium, we are at the glorious beginning of the explosion of science and information in all areas of life. The light of knowledge is shining on all aspects of economic, political, etc. activities and it is not a dark house in the global village. On the other hand, parallel to the production of knowledge and various statistical numbers, the fields of technology are also expanding and developing wonderfully, and in this field of science and technology development, those who have the ability to exploit and use this treasury are the winners. The field of agriculture and animal husbandry has also reached new achievements due to the growth of the world population and the limitation of supply sources, among the vanguards of science and technology advances every day, and in addition to increasing the productivity of inputs, they have achieved amazing numbers during the breeding and maintenance period and the amount of the product. In the field of global trade, thanks to the existence of transparent information and the facilitation of information circulation, the producing countries, due to their relative production and geopolitical advantages, have left the previous traditional shell and are thinking of importing and exporting products that can be easily supplied, distributed and sold in the global and domestic spheres. Iran Feed Industry Association has also published the third edition of "Iran Animal Feed market" in line with its mission and in continuation of the previous series of books that explained and described the domestic and global market and hopes that the publication of this book can help, even a little, to make the production, distribution and sale of livestock, poultry and aquatic feed, more dynamic. It is obvious that the present book is not free of errors and mistakes and the association expects managers and experts to help us by reading the present edition and expressing their opinions in improving the contents, publishing and preparing it for future issues.



Iran Feed Industry Association

Overview

With the formation of livestock and poultry feed mill institutions, organizations and associations in Iran, to receive opinions on the animal

feed industry, be stakeholders and meet the needs of large-scale industries (entrepreneurs), as well as managers, the status of an institution was required and therefore, a number of public and private sector entrepreneurs and managers became involved in this issue.

IFIA as the Official Member of IFIF (International Feed Industry Federation) is Iran's largest organization devoted exclusively to making laws and legislations as well as defending the legal interests of the animal feed industry and the suppliers.

IFIA also is the recognized leader for international companies and provincial associations, and 650 members

which include domestic parties, such as livestock feed and additive feed manufacturers, integrators,

pharmaceutical companies, ingredient suppliers, equipment manufacturers and companies which supply other products, services and suppliers for feed manufacturers. The feed industry plays a significant role in providing feed safety, nutrition and the environment, as well as healthy, wholesome meat, milk, fish and eggs. More than 80 % of the commercial feed in Iran is manufactured by IFIA members.

Besides, setting the foundation to interact with domestic institutions, universities, colleges, there is also relations with international entities such as IFIF (International Feed Industry Federation), FAO, as well as some Chinese, Indian and European institutions.

History

Iran's feed Industry was established 60 years ago, simultaneously with the industrialization of animal husbandry. Nowadays, despite the high depreciation, 3 generations of technology have been integrated into feed mills.

In 2002, the number of animal feed mills was at 300 with the capacity of about 8 million tons production annually, while the number of mills reached 645 with a production capacity of 20 million tons after 15 years.

Over time, a significant number of feed mills were established with a production capacity of over 30,000 tons, due to the high efficiency two working shifts become the norm. Moreover, unlike the old units, the new ones were active at higher or almost actual capacity.

Also, the technology utilized was completely up to date with GMP certifications and Iranian authority's new standards. Most animal farms prefer to purchase their feed requirements

from the newly established mills.

Mission

- ◆ Organize livestock and poultry feed industries with faster coordination, consistency in the activities of the industry.

- ◆ Enhance bargaining power in the domestic and international markets.

- ◆ To improve product quality, with the aim of improving civil and guild management.

- ◆ To pave the way for further exploitation of investment for suitable production of the required merchandise.

- ◆ Apply and transfer stakeholder scientific and practical experience to update achievements of the legal and developmental goals.

- ◆ Organize all affairs relating to animal feed production.

- ◆ Receive data relating to supply and demand, prices and consumption markets, sent to members.

- ◆ Participate in decision-making and determine production of relevant goods and services.

- ◆ Forge relationships and communication with state banks and credit institutions as well as national and international monetary organizations, as per regulations, aimed at facilitating and expanding financial services according to IRI regulations.

- ◆ Create a database for areas related to the goals of the association to provide data via a network, in addition to publication of books, magazines, journals, special-interest and exchange of relevant information;

Goals & Plans

- ◆ Develop and strengthen the contribution of animal feed industry to the national economy.

- ◆ Strengthen the role of animal feed industry in terms of employment and national income.

- ◆ Efforts to promote social knowledge, regarding the role of animal feed industry on inclusive development.

- ◆ Attempts to promote leadership and management knowledge and skills for industrial and semi-industrial feed mills.

- ◆ Attempts to optimize use of resources and environmental protection.

- ◆ Participate with government agencies to create a favorable environment, unity and solidarity among activists in the field of development.

- ◆ Increase bargaining power in the domestic and international markets.

- ◆ Apply and transfer stakeholders scientific and practical experience to update the achievement of the legal developmental goals.

Beliefs & Core Values

Core values are basic beliefs, traits and behavioral norms that would motivate criteria decision making of the organizational culture and all members and stakeholders are expected to commit the implementations and executives and signify the necessary commitment in practice. The beliefs include:

- ◆ Accountability
- ◆ Commitment
- ◆ Cooperation and empathy
- ◆ Independence in providing comments
- ◆ Respect other's opinions and attempts to reach consensus
- ◆ Respect the national and social interests

Vision

- ◆ Transform the association into an information resource and the decision-makers in the field of animal feed industry, so that the relevant industrial policies would not be applied except the participation and presence of the Association.
- ◆ The vision will be realized by focusing on the following strategic issues:
 - ◆ Turn to a stable organization having an optimal financing system
 - ◆ Establishing and maintaining relationships, collaboration and effective partnerships at home and abroad
 - ◆ Creation of a think-tank and expert industrial /economical professionals
 - ◆ Lead in creating and developing standards of corporate governance, social responsibility and business ethics
 - ◆ Extend recruitment and increasing members circle.

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IFIA Members of the Board



Majid Movafegh Ghadirly
Chairman of the board
Director Manager of Iran Feed, Drug and Additive
Joint-Stock Company



Reza Savari
Vice president of the board
Director Manager of Keyvan Morgh Partalaei
Mahabad Company



Seyyed Ali Kheirie
Member of the board
Director Manager of Setare Kian Iranian Company



Ahmad Salahshoor
Member of the board
Director Manager of Gohar Daneh Shargh Company



Foroud Yadollahi
Member of the board
Director Manager of FraDaneh Company



Amir Miran Amoli
Member of the board (Alternative)
Chairman of Amol Behdane Tabarestan Company



Keyvan Estiri
Member of the board (Alternative)
Chairman of Mehr Chineh Chin Kian Company



Saeed Asgharifard
Secretary - General



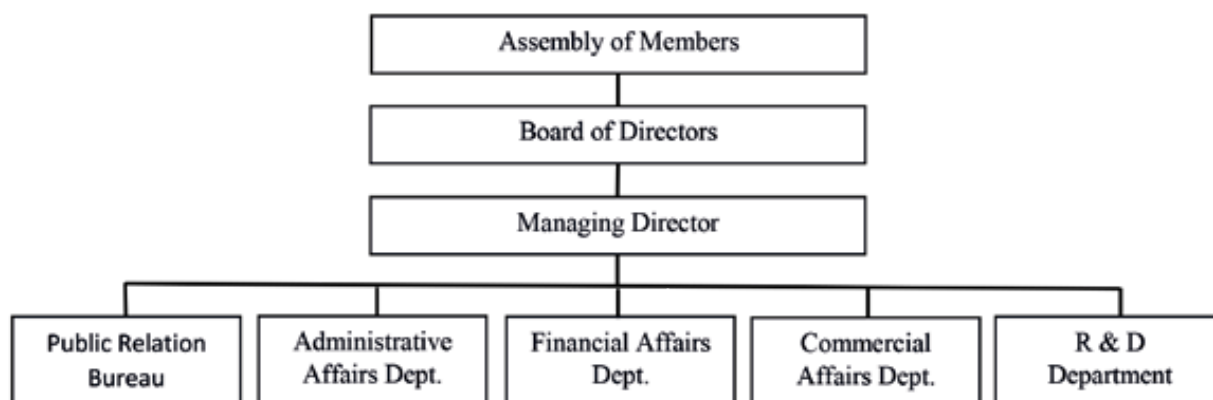
Iran Feed, Drug & Additive Joint-Stock Company

Overview

In 1998, a group of highly reputed and renowned pioneers established Iran Feed, Drug & Additive Joint– stock company to create one of the most comprehensive companies in the field of animal feed industry. The organization under the Ministry of Agriculture-Jahad support and a number of highly reputed entrepreneurs and industry owners and with more than half a century experience, managed to plan and implement strategies in order to improve the Feed industry in Iran. Iran Feed, Drug and Additive Joint-Stock Company (IFDAC) was established with the aim to be one of the most comprehensive and consolidated commercial-trade organizations to improve feed production in a high quality and quantity.

Having more than 145 affiliated feed mills as the members, now the company supplies about two third of the total feed production in Iran. Appropriate geographical distribution of members, warehousing high capacity, well-equipped laboratories, remarkable technological capabilities, considerable turnover and active education and research department, enable the company to cope with its duties perfectly.

The organization chart is illustrated below:



Mission

Participation in economic development by strengthening the promotion and expansion of animal feed, and provide an environment with effective and constructive role in the recovery and improvement of business environment and individuals' quality of life for the industrial companies, scientific centers, organizations and professional companies in the city centers of provinces.

Vision

- ◆ Transforming the company into a database in the field of animal feed industry, so that the relevant industrial policies are not implemented without the participation and presence of the Joint-stock company.
- ◆ The vision would be more touchable by focusing on the following strategic issues:
- ◆ Becoming a stable organization having optimal financial system.
- ◆ Establishing and remaining in the relationships, with collaborations and effective partnerships nationally and internationally.

◆ Creation of a think-tank and expert industrial / economical professionals.

◆ Becoming a leader in creating and developing standards of corporate governance, social responsibility and business ethics.

◆ Very broad recruitment and increasing the circle members.

Strategy

At the moment, with support and assistance of the private sector and valuable strategies of Ministry of Agriculture-Jahad, the organization has the possibility to become a member of related professional and specific associations. The management tries to expedite and facilitate the industry's activities by following up important issues with the authorities. Some of the activities implemented by the organization include possibilities of offering low interest loans, lowering custom tariffs, facilitating export, and controlling strategies of quality.

Already, the R&D center of the organization tries to increase the quality and lower the production cost of animal feed by accessing or importing new raw material technology.

In the other words, a high amount of investment has been made to cooperate with R&D sections, and organizations in Europe, Asia and India, which the Pro-biotic animal feed production is one of the major implemented strategies.

Main Duties

- ◈ Dealing with the trade affairs through contact with the relevant state organizations.
- ◈ Providing the members with the raw material and feedstuff.
- ◈ Marketing and exporting members' products.
- ◈ Supplying the members with technical services in order to improve the sufficiency and profitability.
- ◈ Conducting some projects to enhance quality assurance of products and productivity.
- ◈ Holding seminars, workshops and short-term training courses for expert and staff members.
- ◈ Offering technical consultation on nutrition and feed to the members as well as animal farmers.

In fact, the company makes efforts to facilitate the activities in feed industry through making suggestions to official organization, taking the relevant steps such as offering bank credits with low interest rate, lowering tariffs rate, providing export credits, lowering taxation rate, ensuring the products for quality assurance, promoting the distribution system of feedstuff.

Significant Enterprises

- ◈ Member of specialized committees in Ministry of Agriculture-Jahad.
- ◈ Member of livestock, poultry and aquatic Feed Codex Committee in Iran.
- ◈ Member of Feed Committee of Iranian Institute of Standard and Industrial Research
- ◈ Cooperation with some domestic and international educational institutions by signing up MOUs.
- ◈ Holding some domestic, regional and international workshop, short-term training courses in feed technology.
- ◈ Attendance in some regional and international, exhibition to present Iranian capability of feed industry.
- ◈ Having cooperation with domestic and international research institutions to apply the outcome of the researches in the plants.
- ◈ Offering technical services and consultation to the members as well as livestock, poultry and aquatic farmers.
- ◈ Suppling proposals to officials and policy makers concerning feed manufacture to improve the situation in the industry.
- ◈ Establishing a Wide Area Network (WAN) in the specialized field to join the members.

IFDAC Members of the Board



Reza Savari

Chairman of IFDAC
Managing Director of Keyvan Morghe
Partalaie Mahabad Company



Gholam Reza Nosrt

Member of IFDAC
Managing Director of Hashtgerd
Supplement Company



Majid Movafegh Ghadirly

Managing Director of IFDAC



Mohammad Reza Khabiri

Member of IFDAC
Managing Director of Javaneh
Khorasan Company



Seyyed Ali Kheirie

Vice – chairman of IFDAC
Agent of Khorak gostaran dame
Company



1 IRAN ECONOMY



Overview

The Islamic Republic of Iran is a country in the Middle East (West Asia), which has borders with Armenia, Azerbaijan, and Turkmenistan in North, Afghanistan and Pakistan in East, Iraq in West and Turkey in Northwest, and in the South bordered by the Persian Gulf and Oman Sea.

Iran is divided into five regions with 31 provinces (Ostān); the provinces are divided into counties (Shahrestān) and subdivided into districts (Bakhsh) and villages (Dehestān), each governed by an appointed governor-general (Ostāndār).

Table 1,1: General Information

Official Name	Islamic Republic of Iran
Capital	Tehran
Largest city	Tehran
Official language	Persian
Government	Islamic republic
Area Total	1,648,195 km ² (18th)- Water: (%) 0.7
Population	79.93 mn, 2016 census, (17th)- Density: 45/km ² (163rd)- 116.6/sq m ²
Currency Rial	(IRR)
Time zone	IRST (UTC+3:30)- Summer (DST) Iran Daylight Time (IRDT) (UTC+4:30)
Drive	on the right
Internet TLD	.ir
Calling code	+98



Population

According to the latest census, Iran's total population was 81.1 million, of which 51 and 49 million were male and female. Also 74.35% and 25.64% were urban and rural, respectively, in the year ended March 2018. The population growth had a downward trend, reaching from 2.46% during the 1986-1991 period, to 1.4% in the year ended March 2017.

Figure 1-1: Gender Ratio in the Yr. ended Mar. 2017- %

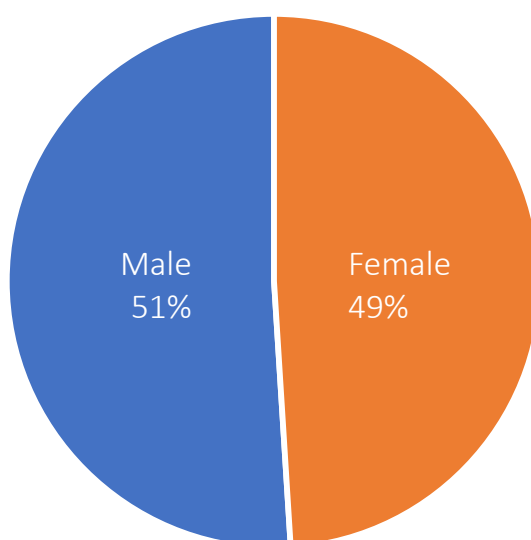
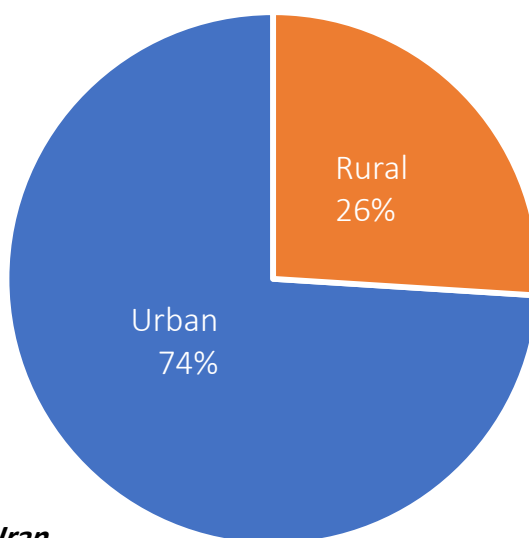


Figure 1-2: Residence Status in the Yr. ended Mar. 2017 - %



Source: Statistical Center of Iran

GDP & Economic Growth

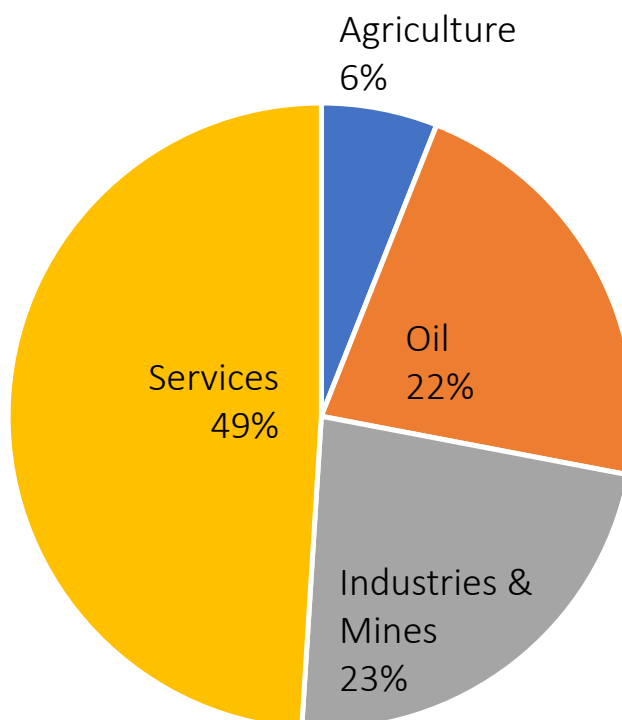
According to the IR Central Bank, the GDP amounted to 191.7 bn dollars in 2020. The International Monetary Fund (IMF) projected that GDP growth will be 2.5% in 2021.

Table 1-2: GDP & Economic Growth 2015-2020

	2015	2016	2017	2018	2019	2020
GDP; Current Price (bn USD)	385	418	445.3	294.4	258.2	191.7
Economic Growth (%)	3.2	13.4	3.76	-6.3	-6.78	-

Source: World Bank

Figure 1-3: GDP Composition 2020 - %



Inflation

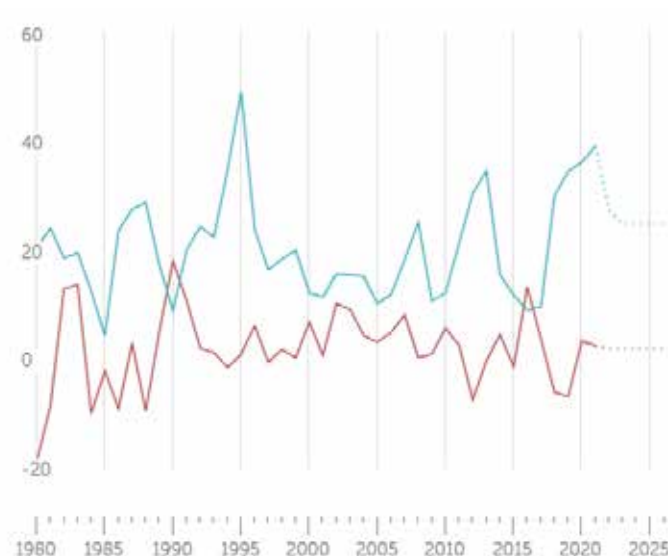
Currently, production cost are increasing and aggregate demand is among the main determinants of inflation. The average inflation rate reached 9.6% the year ended March 2018. According to the International Monetary Fund, Iran inflation rate was 39.3% in the year ended March 2020.

Table 1-3: Inflation - %

YR. ENDED MAR. 2013	YR. ENDED MAR. 2014	YR. ENDED MAR. 2015	YR. ENDED MAR. 2016	YR. ENDED- MAR. 2017	YR. ENDED MAR. 2018
30.5	34.7	15.6	11.9	9	9.6

Source: Central Bank Of Iran (CBI)

Figure 1-4: Inflation rate



Source: IMF

Employment & Unemployment

In the year ended March 2019, Iran's working population was approximately 27.07 million, of which the employed and unemployed accounted for 23.81 and 3.26 million, respectively. The unemployment rate was 11.1% in the year ended March 2019.

Table 1-4: Comparison between Employment & Unemployment -Person

	YR. ENDED MAR. 2017	YR. ENDED MAR.2018	YR. ENDED MAR.2019	CHANGES	
				AMOUNT	%
WORKING POPULATION	25,791,177	26,588,819	27,073,796	484,977	1.82
EMPLOYED POPULATION	22,587,779	23,778,613	23,813,045	34,432	0.14
UNEMPLOYED POPULATION	3,203,398	3,210,206	3,260,796	6,808	1.60
UNEMPLOYMENT RATE (%)	12.4	12.1	12	-0.1	-
ECONOMIC PARTICIPATION RATE (%)	39.4	40.3	40.5	0.2	-

Source: Statistical Center of Iran

Gini Index

The income distribution indicates the Gini coefficient increased in urban and rural households to 0.40 in the year ended March 2020, from the highest rate of 2003. The status of the class distinction has been improving more than the previous years.

Table 1-5: Gini Index

	Yr. ended Mar. 2016	Yr. ended Mar. 2017	Yr. ended Mar. 2018	Yr. ended Mar. 2019	Yr. ended Mar. 2020
Total Gini Coefficient	0.39	0.39	0.4	0.39	0.4
Urban Gini Coefficient	0.37	0.37	0.39	0.38	0.38
Rural Gini Coefficient	0.34	0.34	0.35	0.35	0.35

Source: CBI

Foreign Trade

The non-oil export amounted to 122 million tons, 48 bn USD in the year ended March 2022 which grew by 41%. The import volume reached 42 million tons and 52 bn USD, which grew by 21% and 36% in volume and value, compared to the same period in the previous year.

Table 1-6: Non-Oil Export & Import - 000 tons/ bn USD

	Yr. ended Mar. 2019		Yr. ended Mar. 2020		Yr. ended Mar. 2021	
	Value	Volume	Value	Volume	Value	Volume
Export	44,310	117,228	46,931	132,300	48	122
Import	42,612	320.46	54,302	38,736	42	52
Trade Balance	1,698		7,371		6	

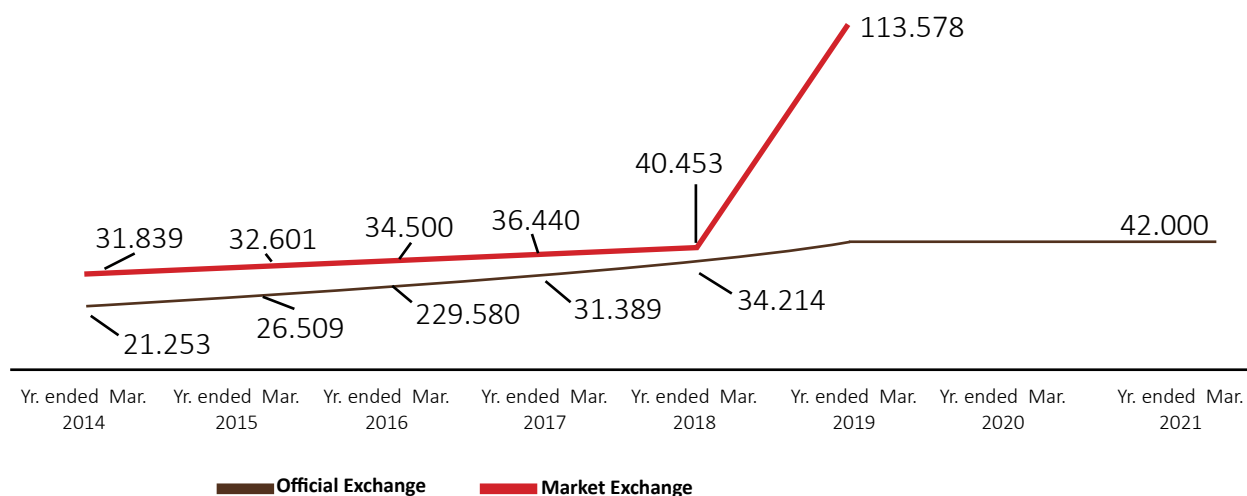
Source: IRICA

Exchange Rate

The official rate of the Central Bank and the market rose by 22.76% and 180.76%, while the exchange rate gap was 71,578 IRR, in the year ended March 2019.

Table 1-7: Average Exchange Rate - USD/IRR

	Yr. ended Mar. 2017	Yr. ended Mar. 2018	Yr. ended Mar. 2019	Yr. ended Mar. 2020	Yr. ended Mar. 2021
Official CBI Rate	31,389	34,214	42,000	42,000	42,000
Market Rate	36,440	40,453	113,578	-	-

Source: CBI**Figure 1-5: Average Exchange Rate - USD/IRR****Source: CBI**

Stock Exchange Index

Table 1-8: Iran TEDPIX Stock Market Index - USD/IRR

	Yr. ended Mar. 2017	Yr. ended Mar. 2018	Yr. ended Mar. 2019	Yr. ended Mar. 2020	Yr. ended Mar. 2021
TEDPIX	77,230	96,290	178,659	130,000	129,000
Industry Index	66,100	86,082	161,031	-	-
Top 50 Index	3,035	4,036	7,668	-	-



2 FOREIGN INVESTMENT INCENTIVES



Incentives Features & Advantages of Foreign Investment Promotion & Protection Act (FIPPA)

- ◆ Unrestricted volume and percentage on foreign investment participation of Iranian company registration possibility with 100% foreign capital.
- ◆ Transfer of capital, dividend and the profits gained in the form of currency or goods.
- ◆ Equal behavior with both foreign and domestic investors.
- ◆ Investment possibility for foreign natural and legal persons and Iranians residing abroad.
- ◆ Investment possibility in all areas permitted for the private sector.
- ◆ Providing protection for all foreign investment plans.
- ◆ Approving foreign capital in a short and fast process.
- ◆ Issuance of a 3-year residence visa for investors, managers, foreign experts and their firstdegree relatives.

Risks Covered by FIPPA

- ◆ Expropriation and nationalization.
- ◆ Unlimited transfer of principal and dividend.
- ◆ Guarantee of purchasing goods and services produced in foreign investment projects with BOT method via monopsony

Customs Incentives

- ◆ Exemption of Customs duties production line machineries and equipment provided that being new and not being made domestically.
- ◆ Raw material used for export commodities production.
- ◆ All production line machineries and raw materials in free zones.
- ◆ Components imported by manufacturing units for producing domestic goods are exempted from 20% customs duties, provided that they have not been made in Iran and recognized by Ministry of Industries, Mine and Trade.
- ◆ Knowledge-based companies and institutions are exempted from commercial taxes, customs and export duties.



Tax Incentives

- ◆ Taxable incomes of knowledge-based institutions resulted from the contracts, research and development activities, commercialization and knowledge-based services are exempted from taxes for 20-year.
- ◆ Companies with more than 50 employees: in case of increasing the employment volume up to 50% in comparison to the last year, will enjoy one added year exemption.
- ◆ If foreign companies with the capacity of domestic production units start business with authentic brands and export at least 20% of total production, can benefit 50% of tax exemption.

Table 2-1: Fixed Corporation Income Tax at a Flat Rate of 25%

Activity	Level	Duration
Industry & Mine	80%	4 Years
Industry & Mine in Less Developed Areas	100%	20 Years
Agriculture	100%	Perpetual
Tourism	50%	Perpetual
Export of Services & Non-oil Goods	100%	During 6 th development
Salary in Less Developed Area	50%	Perpetual
Profit used to Development of Existing Unites or Setting up New Units	50%	Perpetual

Source: Ministry of Industry, Mine & Trade

Table 2-2: Income Tax with rate of 0%

Duration	Economic Sector
5 Years	Industry, mine & services (Hospital & Hotels)
7 Years	Industry, mine & services (Hospital & Hotels) years in industrial parks and economic especial zones
10 Years	Industry, mine & services (Hospital & Hotels) years in less developed areas
13 Years	Industry, mining & services (Hospital & Hotels) in less developed areas located at industrial parks and economic especial zones

Source: Ministry of Industry, Mine & Trade

Other Tax

Total taxable income \leq registered capital 50% of income is tax free

Less Developed Areas

Total taxable income capital \leq double of registered capital 100% of income is tax free.

In case of each 5% foreign investment, 10% will be added to the 2 incentives, maximum up to 50%.

Regional Incentives

Investment Incentive in Special Economic Zones

- ◆ Import from economic zone for domestic consumption would be subordinate to export and import regulations, while export from the areas will be carried out without any formalities.
- ◆ Import from abroad, free zones, or industrial areas would be carried out with minimal customs formalities and domestic transit are performed in accordance with the relevant Regulations.
- ◆ Goods imported from abroad, industrial areas or other commercial zones could be exported with no formalities.
- ◆ Management of the region is allowed to assign the region to qualified natural or legal persons after classification and valuation.
- ◆ Owners of goods imported to the region could send all or part of their goods for temporary entry in to the country after doing customs clearance regulations.
- ◆ If the processing of imported goods were to some extent that changes the goods tariff, the commercial benefit rate of the goods would be calculated equal the commercial benefit of raw material and spare parts.
- ◆ Importers of goods are allowed to hand over to others part or all of their products against warehouse receipt to be issued by the district administration, in this case the breakdown warehouse receipt holder would be the owner.
- ◆ The management of each district is authorized to issue certificated of origin for goods per applicant out of the area with the approval of the customs.
- ◆ All the goods imported to the region for the required production or services are exempted from the general import-export laws. Import of goods to other parts of Iran will be subordinated to export and import regulations.
- ◆ Percentage of goods produced in the zone, based on paragraph (d) of article (25) in the law of the second economic, social and cultural development plan of the Islamic republic of Iran imported to the country, the proportion of total value added and domestic parts and material used in the total price of the commodity production is allowed without any limitation and in addition to not having to order and open letter of credit.
- ◆ Goods manufactured in special economic zones, as well as raw material and imported CKD parts into the country is not subject to price regulation due to unutilized resources and allocated currency.

Incentive & Advantages for Investment in Trade Industrial Free Zones

The list of the special economic zones of the Islamic Republic of Iran are as follows:

- ◆ Salafchegan special economic zone
- ◆ Shiraz special economic zone
- ◆ Assaluye special economic zone
- ◆ Arge Jadid special economic zone
- ◆ Payam Airport special economic zone
- ◆ Persian Gulf special economic zone
- ◆ Lorestan special economic zone
- ◆ Amirabad port special economic zone
- ◆ Bushehr Port special economic zone
- ◆ Shahid Rajaei Port special economic zone
- ◆ Sarakhs special economic zone
- ◆ Sirjan special economic zone
- ◆ Yazd special economic zone
- ◆ Bushehr special economic zone
- ◆ Tax exemption for 20 years from the date of operation for all economic activities.
- ◆ Foreign investment and nearly a hundred percent of the amount invested.
- ◆ Exemption of entry and exit of capital and profits.
- ◆ Protection and guarantees for foreign investments.
- ◆ Abolition of entry visas and easily issue of residence permits for foreigners.
- ◆ Facilitated regulation on labor relations, employment and social security.
- ◆ Transfer of part manufactured goods to the mainland without paying customs duties.
- ◆ Elimination of pay customs duties on import from outside to the region and vice versa.
- ◆ Employed trained and skilled work force in all different skill levels and professions.
- ◆ Utilization of raw materials, oil and gas as feedstock and fuel for all industrial activities.



INVEST!!!



Other Incentives

The list of the Trade-Industrial Free Zones of the Islamic Republic of Iran are as follows:

- ◆ Qeshm Trade-Industrial Free Zone
- ◆ Chabahar Trade-Industrial Free Zone
- ◆ Aras Trade-Industrial Free Zone
- ◆ Anzali Trade-Industrial Free Zone
- ◆ Arvand Trade-Industrial Free Zone
- ◆ Kish Trade-Industrial Free Zone
- ◆ Maku Trade-Industrial Free Zone
- ◆ Take advantage from local currency facilities of the National Development Fund.
- ◆ The partnership possibility of development organizations (Iran Industrial Development and Renovation Organization, Iranian Mines and Mining Industries Development and Renovation Organization) in implementation of investment projects in less developed regions.
- ◆ The possibility of establishing new industries in estates industries areas with restrictions of the establishment of industries (120 kilometers distance from Tehran and 50 km and 30 km distance from the centers of some provinces).
- ◆ Government's guarantee for foreign investment while political risks emerges.
- ◆ Foreign investments have benefited from all rights, protections and similar facilities to local investors.
- ◆ Guarantee importation and exportation of original interest and installment of investors' financial facilities.
- ◆ Exemption of export commodities produced by financial corporation with participation of foreign investors.
- ◆ Possibility of temporary importation without customs duties payment for export commodity processing.
- ◆ Awards and export subsidies (participating costs in fairs and marketing).
- ◆ Export commodities exemption from paying all type of duties.
- ◆ Possibility of foreign investment for private sector activity in all permitted areas in Iran. No restrictions in investment volume and the percentage of partnership.
- ◆ Free import of machinery and raw material from free industrial trade zones and special economic zones (except passenger cars and recreational boats).



3 AGRICULTURAL SECTOR



Overview

Developing and strengthening the agricultural sector is crucial to fostering economic foundations in developing countries. Stability and continuous growth in the agricultural sector are essential to social stability and economic growth since the mentioned sector is important to supply food and raw materials for industries, employment, and income. The agricultural sector is significant in terms of providing skills in the rural societies, because of the important role played at providing job opportunities, income and local & national security. The growth of the agricultural sector facilitates the development process through sustainability, transitions and resources of the other economic sectors. Moreover, the economic growth of agricultural sector plays an important role in decreasing poverty. Hence, regarding the promotion of utilization and efficiency levels, agricultural development is critical to achieve economic growth.

Agriculture is the 2nd largest economic sector after Services in Iran. Almost one-third of land is arable and fundamental from the aspects of economy, food security, production, employment, export, protection, utilization of natural sources, research and technology development as well as public participation. Agricultural growth directly affects economic growth which holds about 11% of GDP(2021), 14.4% of non-oil exports, 17.7% of total employment and over 80% of the domestic supplied food.

The cultivated area of crops is 16.5 million hectares and hold first to tenth place in world ranking by cultivation of 20 horticultural products and 7 crops which provides food for the Persian Gulf neighboring countries besides the local food supply and has 47% of arable lands and 10% of the total area of Iran. Horticultural and cultivated lands cover about 2.85 million hectares and 11 million hectares from the total arable lands, respectively, 54% and 46% of which belongs to irrigation and dry land farming. In the year ended March 2019, the agricultural value added was estimated, the constant price (year ended March 2012), 440 billion IRR which had 3.5% decrease in comparison to the same period the previous year while the share of GDP was 3.8%.

The average growth rate of value added of the agricultural sector was 3.4% during the years ended March 2013-2019. The trend of agricultural value added was upward (constant price from the year ended March 2012 to March 2017).

Although an upward trend, the growth of value added was down in the year ended March 2018 and the value added had a negative trend in the year ended March 2019.



Crops

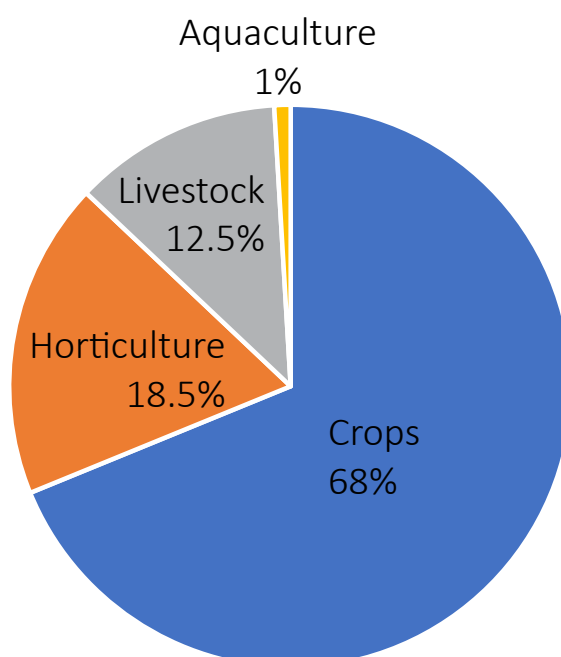
The crops production has experienced an upward trend in the past few years, the total amount of crops reached 91.7 million tons and horticultural reached 24.3 million tons in year ended March 2021. Crops, of the total amount of agricultural products, have a share of 70% of the total agricultural sector in Iran. The horticultural products have 18% and animal products 12% share take the second and third places, respectively and fishery and aquatic products have 1% share and are the smallest parts of the agricultural sector.

Table 3-1: Agricultural Products

	Yr. ended Mar. 2020	Yr. ended Mar. 2019	Yr. ended Mar. 2018	Yr. ended Mar. 2017	Yr. ended Mar. 2016
Crops (mn tons)	91.7	68.1	74.6	77	82.9
Total production share (%)	68	69.6	70.6	69.1	69.9
Horticulture (mn tons)	24.3	15.9	76.5	19.4	21.0
Total Production Share (%)	18.5	16.3	16.5	17.4	17.7
Livestock (mn tons)	16	12.8	13.6	14.1	13.5
Total Production Share (%)	12.5	13.1	12.8	12.6	11.4
Aquaculture (mn tons)	1.25	0.9	0.9	0.9	1.0
Total Production Share (%)	0.93	0.9	0.9	0.8	0.9
Total (mn tons)	133.25	97.7	105.6	111.5	118.6

Source: Ministry of Agriculture-Jahad

Figure 3-1: Agricultural Combinations - Yr. ended Mar. 2019-%

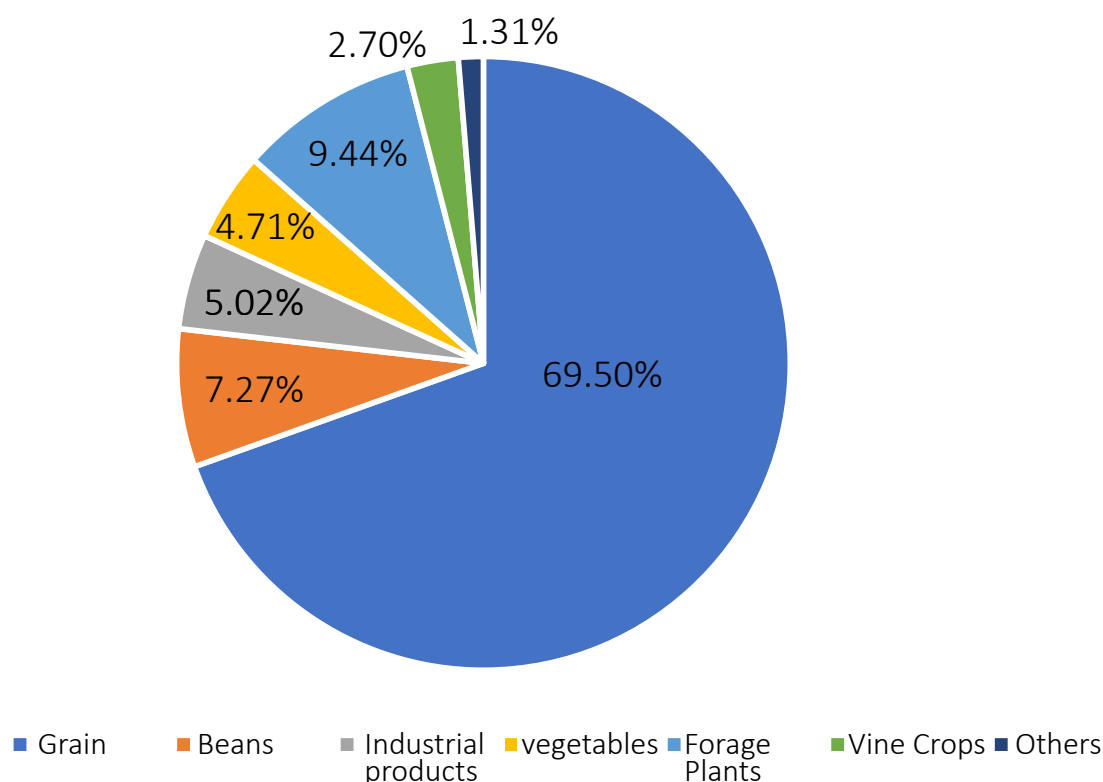


Crops Under Cultivated Land

The cultivated land is about 11.4 million hectares including grain, beans, industrial products, vegetables, cucurbits and forage plants. About 60% and 40% of the total land area is allocated to agricultural irrigation and dry land farming, respectively.

In addition, crops forming the total cultivated land include about 7.65 million hectares grain (69.5%), 799,000 hectares bean (7.27%), 552,000 hectares industrial products (5.02%), 517,000 hectares vegetables (4.71%), 1.04 million hectares forage plants (9.4%), 296,000 hectares cucurbits (2.7%), and 144,000 hectares crops (1.31%). Grain, forage plants, and bean have the largest share of 86.2% in terms of total crops.

Figure 3-2: Under Cultivated Land -% (2020)



Source: Ministry of Agriculture-Jahad

Production

Over 4.3 million farmers in Iran produce more than of 124 million tons of agricultural products per year on more than 18.5 million hectares.

Agronomical products account for over 83.5 million tons of the total volume.

Iran possesses 14.3 million hectares of forests, 84 million hectares of pastures, 2.7 million hectares of woodland and 32.6 million hectares of deserts.

Iran's output of agricultural products is expected to reach 128 million tons by the year ended March 2021]

Agricultural production has increased from 97 million tons in 2013 to 125 million tons in the fiscal 2019-20 to register a 28.86% rise, according to the minister.

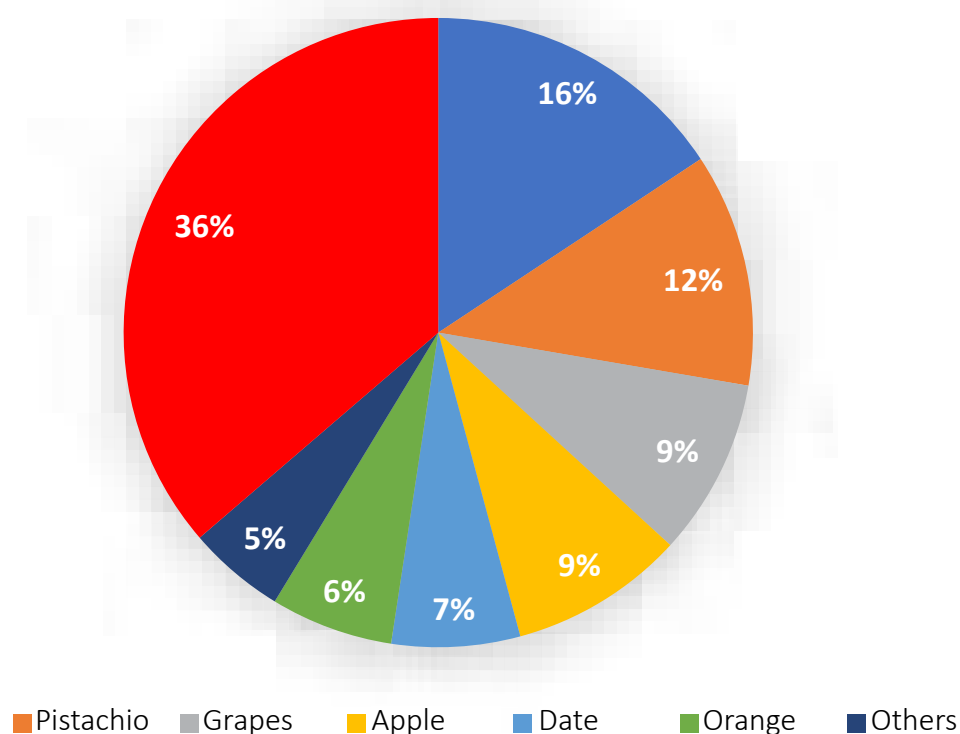
Horticultural Products

Fertility Area

The orchards of Iran occupied a total amount of 2.91 million hectares in the year ended March 2019 (both fertile and unfertile)-2.46 million hectares fertile. Irrigation had a share of 74%, dry land, of which 10.2% were pome fruits (about 279,000 hectares), 9.6% drupe fruits (270,000 hectares), 12.4% seed-bearing fruits (317,000 hectares), 28.1% dry fruits (839 thousand hectares), 0.8% cool temperate climate fruits (24,000 hectares), 28.2% subtropical fruits (818,000 hectares), 0.4% tropical fruits (13,000 hectares), 0.4% greenhouse crops, and 9.9% other horticulture crops.

The most fertile horticultural crops were pistachios with 17.15% (9,000 hectares) and 276,000 hectares other crops such as grapes (10.6%), apples (8.43%), dates (8.8%), oranges (6%), almonds (6.3%), and walnuts (5.5%), while 62.75% of fertile gardens belonged to 7 crops.

Figure 3-3: Fertility of Horticultural Products -% (2020)



Source: Ministry of Agriculture-Jahad

Production

In the year ended March 2020, the volume of major horticultural products was 24.4 million tons, about 4.4 million tons (18.6%) of which were pome fruits, 2.6 million tons (11%) drupe fruits, 3.4 million tons (14.3%) seed-bearing fruits, 819,000 tons (3.4%) fruit chips, 41,35 tons (0.2%) cold-climate fruits, 7.7 million tons (36.6%) subtropical fruits, 208,000 tons with 0.9% tropical fruits, 3 million tons (12.6%) greenhouse products and 619,7000 tons with 2.5% other horticultural products. The total share of horticultural products (64.2%) is for 6 products.

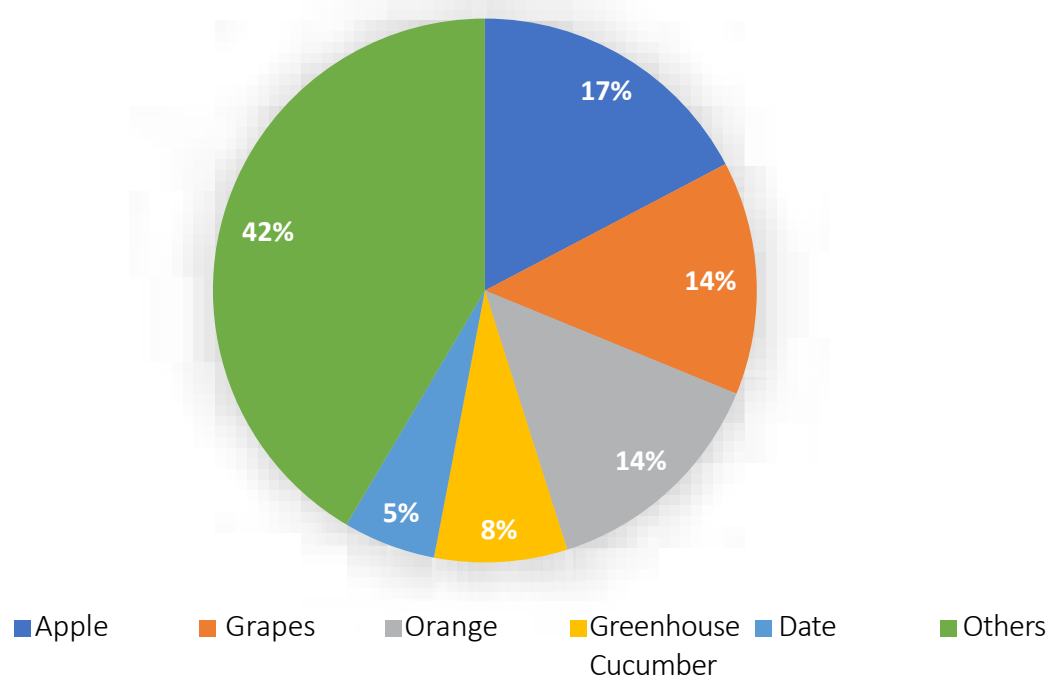
The major share of horticultural products were apples (17.3%), grapes (13.9%), oranges (13.9%), greenhouse cucumbers (7.9%), dates (5.5%) and others (41.51%).

Table 3-2: Major Horticultural Products -mn tons

	Volume	Total (%)
Apple	4.2	17.3
Grapes	3.4	13.9
Orange	3.4	13.9
Greenhouse Cucumber	1.98	7.9
Date	1.3	5.5
Others	1.2	41.5

Source: Ministry of Agriculture-Jahad

Figure 3-4: Major Horticultural Products -%



Source: Ministry of Agriculture-Jahad

Exports & Imports

Exports

Data released by the Agriculture Ministry show Iran exported 7.1 million tons of agricultural and food products worth over \$5.82 billion in the last fiscal year that ended on March 19, 2020, to register a 2.34% rise in tonnage and 8.93% decline in value compared to the year before.

In-shell pistachio (fresh and dried) topped the list of exports in terms of value, as the country exported \$724.2 million worth of the crop during the period.

Apple was the second major exported agricultural product in terms of value with \$362.27 million followed by tomatoes with \$259.21 million, unshelled pistachios with \$240.58 million and watermelon with \$175.97 million.

In term of tonnage, watermelons topped the list with 748,090 tons, followed by apples with 740,220 tons, tomatoes with 572,940 tons, potatoes with 480,440 tons and onions and shallot with 394,990 tons.

Horticultural products accounted for 1.95 million tons worth \$2.72 billion of total exports, up 30.03% and 19.72% in tonnage and value respectively year-on-year. Exports of agronomical products stood at 4.41 million tons worth \$2.09 billion, down 5.2% and 20.42% in tonnage and value respectively YOY.

Exports of livestock and poultry products stood at 586,400 tons worth \$718.87 million, down 7.01% and 34.05% in tonnage and value respectively YOY.

The fisheries sector exported 126,590 tons worth \$249.3 million, up 4.58% in tonnage and down 25.21% in value YOY.

Exports from the forest and rangeland sector hit 19,080 tons worth \$31.2 million, down 29.45% and 46.19% in tonnage and value respectively YOY.

The veterinary sector's exports amounted to 350 tons worth \$2.31 million, up 16.23% in tonnage and down 27.68% in value YOY.

Agriculture was the only sector that experienced growth in the last Iranian year (March 2019-20).

Table 3-3. Exports by Agriculture Sector

	Yr. ended Mar. 2020	Yr. ended Mar. 2019	Yr. ended Mar. 2018	Yr. ended Mar. 2017	Yr. ended Mar. 2016
Value (bn USD)	7.1	6.2	5.7	5.7	6.3
Total non-oil Export Share(%)	24	12.26	12.97	12.34	14.43

Source: Ministry of Agriculture-Jahad

Table 3-4. Comparative statistics of export of main livestock products in 2021&2020

		2020		2021		Change (%)	
		Volume 000 MT	Value Million USD	Volume 000 MT	Value Million USD	Volume	Value
Livestock	Live Animals	2.16	7.64	1.57	6.02	37.47	26.84
	Processed	568.47	533.22	604.52	616.48	-5.96	-13.51
	Non-processed	11.34	20.27	68.39	54.57	-83.41	-62.86
Total		581.97	561.12	674.48	677.07	-13.72	-17.13
Veterinary	Vaccine	0	0.015	0	0.016	-6.977	-6.963
	Medicine	1.09	10.745	0.865	7.703	25.969	39.488
	Live objects	0	0.002	0.02	0.101	-97.959	-97.971
Total		1.09	10.762	0.885	7.82	23.154	37.614
Aquatic	Caught	1.75	2.17	5.62	7.86	-68.94	-72.41
	Aquaculture	119.67	218.85	105.04	200.79	13.93	8.99
Total		121.41	221.02	110.66	208.66	9.72	5.92

Source: Information and Communication Technology Center-Ministry of Agriculture-Jahad

Table 3-5. Comparative statistics of export of main agricultural products in 2021&2020

		2021		2020		Change (%)	
		Volume 000 MT	Value Million USD	Volume 000 MT	Value Million USD	Volume	Value
Wheat		32.3	14.74	55.11	18.55	-41.4	-20.57
Barley		0.4	0.32	0.32	0.29	24.69	10.53
Corn		19.46	4.97	20.34	4.68	-4.29	6.21
Oil Seeds	Soy	0.2	0.18	0.12	0.09	72.32	107.32
	Other	1.46	2.42	4.49	7.26	-67.41	-66.58
Red Meat	Red Meat	0	0	0.02	0.02	-89.53	-82.18
	Entrails	2.47	1.78	1.13	1.42	119.7	24.91
	Total	2.48	1.78	1.15	1.44	116.21	23.37
Poultry Meat	Poultry Meat	0.03	0.01	54.73	68.24	-99.95	-99.99
	Entrails	25.01	8.37	22.11	13.2	13.13	-36.62
	Total	25.04	8.37	76.83	81.44	-67.41	-89.71
Eggs	Table Eggs	8.06	5.32	61.99	37.11	-87	-85.68
	Fertile Eggs	0.07	0.23	3.51	6.05	-97.94	-96.25
	Total	8.13	5.54	65.49	43.16	-87.59	-87.16
Meal	Soybean meal	0	0	0.06	0.06	-99.9	-99.89
	Other	0	0	0	0	0	0
	Total	0	0	0	0.06	-99.9	-22.42

Source: Information and Communication Technology Center-Ministry of Agriculture-Jahad

Import

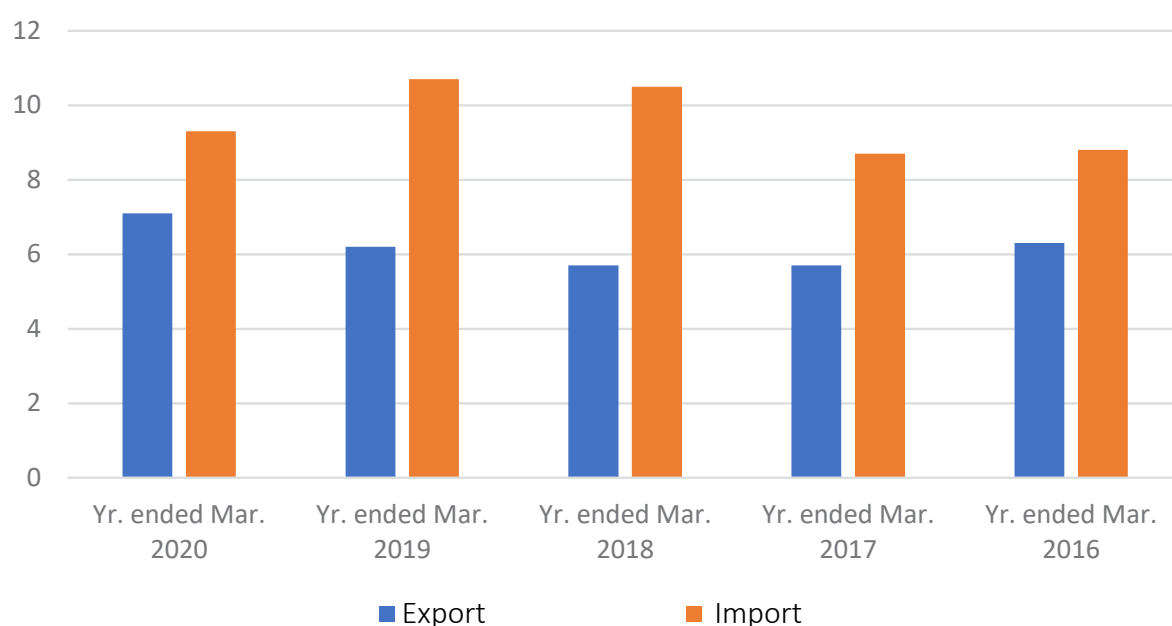
Iran imported \$9.3 billion worth of agricultural products in the year ended Mar. 2020, \$8 billion of which were related to the import of oilseeds and corns while \$1.3 billion belonged to import of livestock vaccines and poultry drugs.. In the same period, some \$14 billion was spent on importing basic goods and commodities.

Table 3-6. Imports by Agriculture Sector

	Yr. ended Mar. 2020	Yr. ended Mar. 2019	Yr. ended Mar. 2018	Yr. ended Mar. 2017	Yr. ended Mar. 2016
Value (bn USD)	9.3	10.7	10.5	8.7	8.8
Total non-oil Import Share(%)	25	26.02	20.39	20.56	22.22

Source: Ministry of Agriculture-Jahad

Figure 3-5: Agricultural Export & Import -mn USD



Source: Ministry of Agriculture-Jahad



Table 3-7. Comparative statistics of import of main livestock products in 2021&2020

		2020		2021		Change	
		Volume 000 MT	Value Million USD	Volume 000 MT	Value Million USD	Volume 000 MT	Value Million USD
Livestock	Live Animals	4.29	23.53	3.53	30.77	21.66	-23.51
	Processed	192.3	530.79	95.46	390.69	101.45	35.86
	Non-processed	20.13	98.06	1.74	22.9	1054.3	328.23
Total		216.72	652.38	100.73	444.36	115.15	46.82
Veterinary	Vaccine	0.487	58.213	0.47	63.961	3.584	-8.986
	Medicine	5.066	341.521	3.298	247.829	53.624	37.805
	Live objects	0.028	0.846	0.045	0.47	-38.066	80.111
Total		5.581	400.58	3.813	312.26	46.363	28.284
Aquatic	Caught	0.1	4.74	0.11	6.09	-13.87	-22.17
	Aquaculture	11.37	27.19	19.64	41.47	-42.14	-34.42
Total		11.46	31.94	19.76	47.56	-41.98	-32.85

Source: Information and Communication Technology Center-Ministry of Agriculture-Jahad

Table 3-8. Comparative statistics of Import of main agricultural products in 2021&2020

		2021		2020		Change (%)	
		Volume 000 MT	Value Million USD	Volume 000 MT	Value Million USD	Volume	Value
Wheat		7075.32	2486.51	3284.65	1.04	115.4	170.49
Barley		3338.29	1005.63	1866.72	465.84	78.83	115.87
Corn		9784.36	3407.45	9885.23	2528.24	-1.02	34.78
Rice		1790.14	1516.9	1042.5	932.57	71.72	62.66
Oil Seeds	Soy	2203.76	1451.73	2122.87	1048.35	3.81	38.48
	Canola	7.01	6.8	160.04	80.64	-95.62	-91.56
	Other	152.76	219.81	101.31	147.4	50.79	49.12
	Total	2363.53	1678.34	2384.22	1276.39	-0.87	31.49
Red Meat	Red Meat	31.49	142	35.92	163.31	-12.35	-13.05
Poultry Meat	Poultry Meat	125.13	238.07	0.11	0.2	10811.11	116942.6
Eggs	Table Eggs	12.55	19.88	0.02	0.14	54366.92	14342.18
	Fertile Eggs	6.08	48.05	0.04	1.36	16316.86	3444.98
	Total	18.63	67.93	0.06	1.49	30907.66	4449.53
Meal	Soybean meal	2338.17	1274.27	1819.64	793.94	28.5	60.5
	Other	9.15	1.88	8.1	1.85	12.94	1.51
	Total	2347.32	1276.15	1827.74	795.79	28.43	60.36

Source: Information and Communication Technology Center-Ministry of Agriculture-Jahad

Table 3-9. Comparison of trade balance of agriculture and food sector in 2021&2020

	Food and Agriculture Sector				Change	
	2021		2020			
	Volume 000 MT	Value Million USD	Volume 000 MT	Value Million USD	Volume	Value
Export	8475.85	5226.4	8834.65	6210.17	-4.06	-15.84
Import	31488.55	17899.15	23704.18	10911.93	32.84	64.03
Trade Balance	-23012.7	-12672.75	-14869.53	-4701.76		

Source: Information and Communication Technology Center-Ministry of Agriculture-Jahad

Development & Renovation of Agricultural Mechanization

Machines play an important role in decreasing costs and waste in the process of agricultural production. In the past 5 years, about 500,000 tractors, over 1,500 combines, over 45,000 seed planters and over 44,000 poison sprayers were utilized in the agricultural sector.

The combined volume increased from 64 machines to 17,334 in the 1977-2018 period. The number of tractors increased from 68,451 machines to 555,133 in the same period.

Although the lack of rice trans planters and combine machines were clearly felt in 1977, the chain of agricultural mechanization came to full circle with 7,220 and 7,878 vehicles, respectively. In addition, 18,000 soil mixing machines and 44,895 tractor, and poison sprayers were added to the chain, recently.

Complementary & Processing Industry

Using modern technologies has helped the complementary and processing industry to develop swiftly in the past 4 decades. The industry's capacity increased from 3.3 million tons of raw material absorption to over 47 million tons, in the agriculture sector, in the 1977-2018 period.

Moreover, Agro-processing companies grew to 20,000 in the year ended March 2019. Cold storage and refrigerators reached 1,830 units with 4,500,000 tons of growth in capacity.

Industrial slaughterhouses experienced remarkable growth from 4 to 75 units and industrial poultry slaughterhouses reached from 3 to 273 units between the years 1977 and 2018.

Crops Insurance

After the Islamic Revolution (1979), the government established a Relief Fund for suffering Agricultural Units with the approval of the IRR insurance law (1984) and Agricultural Insurance Fund (AIF), to manage farmer risks and to supplement their income.

At present, agricultural insurance guarantees 3.5 million hectares of arable land and 419,000 hectares of horticultural land. Besides, about 3,619,000 livestock, over 693 million poultry and over 3,143 hectares of aqua-farm have been under insurance coverage since March 2018.

In the year ended March 2017, 12,570 billion IRR was paid to agricultural producers for over 875,000 compensation cases.

Investment Advantages & Incentives

Iran has high rankings in many agricultural products which can be a significant factor for asset owners creating job opportunities and raising the IRI to the 1st to 9th ranks for the 35 agricultural products in the world. Iran is the 1st producer of pistachio, saffron and caviar 2nd in cucurbits and 3rd in dates at present.

- ◆ The proceeds of all activities at agriculture, animal husbandry, livestock breeding, fish farming and honey beekeeping and poultry raising, fishing, sericulture, reviving pasture and forest, garden, or any kind of land are exempted from taxation, and all natural and legal persons (Iranian and non-Iranians) could benefit from the exemption from the beginning of the activity.
- ◆ Export of agricultural products, including crops, horticulture, livestock and poultry, fisheries, forest and rangelands, and conversion and complementary industries are 100% exempt from taxes.
- ◆ Agriculture and animal husbandry provide the best opportunity to invest in Iran, because about 120 million tons of crops and livestock exist by volume, in addition to quality, and unique diversity in the conversion and complementary industries. Tax and customs exemptions for the re-export of processed agricultural and animal products have provided incentives to attract investors.
- ◆ Iran has a four seasons variety, meaning the best agricultural and livestock products.
- ◆ The proximity to the countries of Iraq and Afghanistan, and Persian Gulf regional states which lack agricultural potential, the existence of land and air transit infrastructures in Iran has enabled foreign investors to export products after processing and receiving investment profits in foreign currencies.
- ◆ Agricultural export in non-oil sector have been important during the recent years, as raw and unprocessed products constitute the major part.
- ◆ The Complementary and processing industry has a great influence on the agricultural sector. Considering the lack of significant development of complementary and processing industries in the agricultural sector and the policy of the Ministry of Agriculture-Jahad toward processed of agricultural products, complementary and processing industries can be considered as one of the significant investment opportunities.
- ◆ Iran is known as a unique and unrivaled producer of saffron in the world markets, and significant capacities are available, but unfortunately, these products are traditionally exported with the least value-added. Thanks to modern technologies, Spain cultivates the product at 6.5 kilograms per hectare, while this figure in Iran is 3.8 kilograms per hectare meaning less value added than the rivals, due to the sale of raw materials. Therefore, applying modern technologies and packaging as well as processing technologies could be good opportunities for foreigners.



Investment Opportunities

Crops

- ◆ Production of hybrid maize
- ◆ Cultivation of oily seeds
- ◆ Vegetable processing and packaging
- ◆ Choline chloride Plant (Poultry Feed Supplement) from corn grain
- ◆ Project of glucose and starch from corn
- ◆ Hybrid maize seeds production
- ◆ Construction of maize seeds hybrids processing plant
- ◆ Construction of cotton gin advanced equipment production plant
- ◆ Organic production

Horticulture

- ◆ Cultivation of medicinal plants and related industries
- ◆ Production of edible mushrooms and processing industry
- ◆ Horticultural mechanization machinery
- ◆ Pre-cooling device for grapes and strawberries
- ◆ Pistachio automatic sorting machine and pasteurization equipment

Livestock

- ◆ Furnishing and optimization of dairy centers
- ◆ Optimization of dairy cattle breeding equipment
- ◆ Production of milking machinery and equipment
- ◆ Laboratory analysis of milk equipment projects
- ◆ Sperm production center projects (AI)
- ◆ Ranch Farming equipment (broilers and layers)
- ◆ Incubator equipment
- ◆ Broilers slaughtering equipment
- ◆ Livestock and poultry feed equipment
- ◆ Dairy cattle nourishment
- ◆ Animal husbandry centers
- ◆ Production of veterinary drugs

Complementary & Processing Industries

- ◆ Rating, drying, packaging, processing, freezing, fruits dry powder
- ◆ Pistachio, nuts and raisin processing pasteurization and sterilization projects
- ◆ Dairy products equipment includes sterilized milk, ice cream, milk powder and cheese

- 
- A large flock of sheep, mostly white with some brown and black faces, is gathered in a dry, hilly landscape. The sheep are standing on a dirt path or field. In the background, there are rolling hills and a few people can be seen. The overall scene is a pastoral setting.
- ◆ The equipment project of industrial poultry and livestock slaughterhouse (Advanced)
 - ◆ The equipment project of aquatic canned with modern processing and packaging, e.g. sardines, shrimp etc.
 - ◆ New technology industry of fish oil and powder projects
 - ◆ Modern industry of aqua feed processing projects
 - ◆ Olive-oil projects
 - ◆ Leather production
 - ◆ Dairy
 - ◆ Pharmaceuticals process of fish oil
 - ◆ Essence and aromatic substances production by using effective medicinal plants
 - ◆ Production of extraction from medicinal plants
 - ◆ Sorting, grading and packaging of saffron
 - ◆ Two-circuit cooling

Aquaculture

- ◆ Aquaculture nourishing
- ◆ Construction and equipping caviar centers to produce meat and caviar
- ◆ The construction and equipping marine fishery
- ◆ Aqua feed and its raw materials projects
- ◆ The construction of fishing ships and equipment

4 LIVESTOCK SECTOR



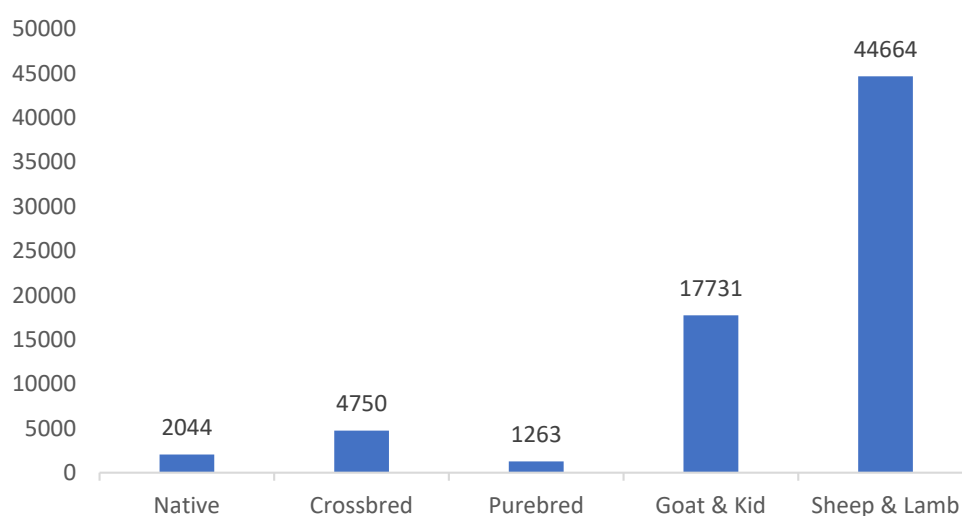
Overview

Livestock farms are important in the agricultural sector, producing milk, dairy products, meat, fertilizer, etc. Livestock are among the major products in the agricultural sector and play an important role in the human food chain and growth of population and demand in further production.

Livestock Population

The population of calf and cattle was 8,057,248 and categorized into 1,263,000 head purebred, 4,750,000 head crossbred, 2,044,000 head native in the year ended March 2019. Provinces including Tehran with 225,102 head of purebred, Mazandaran with 396,736 head of crossbred and 242,487 head of native cattle holding the first rank in calf and cattle livestock. The population of sheep and lamb was estimated at 44,664,030 while the population of goat and kid was 17,731,732. Provinces, including Razavi Khorasan, had a volume of 5,869,699 of sheep and lamb and Fars 2,470,464 of goat and kid ranked 1st in sheep farming.

Figure 4-1: Population of Livestock by Type & Province - 000 head



Source: Agricultural Production Report

Table 4-1: The animal population of the country in 2020, 1,000 Head

Sheep and lamb	Goat and kids	Cattle and calves			Buffalo & calves	Camel & calves
		Pure	Crossbred	Indigenous		
44664	17731	1333	4823	1830	224	201

Source: Deputy Minister of Livestock Production

Table 4-2. Population of Livestock Classified by Type & Province-2021 - 000 head

	Sheep & Lamb	Goat & Kid	Calf & Cattle			
			Crossbred	Purebred	Native	Total
East Azerbaijan	2,956	518	33	295	162	491
West Azerbaijan	3,483	379	13	260	148	422
Ardabil	1,683	305	24	136	131	292
Isfahan	1,369	484	204	367	16	588
Alborz	315	41	78	76	0.4	155
Ilam	1,217	494	12	30	35	78
Bushehr	381	583	1.3	26	15	42
Tehran	863	120	225	219	7.3	452
Chaharmahal & Bakhtiari	1,152	381	33	136	23	193
South Khorasan	818	918	10	60	0.9	79
Razavi Khorasan	5,869	842	132	344	22	499
North Khorasan	1,666	303	11	55	12	79
Khuzestan	2,246	1,094	17	190	131	340
Zanjan	840	179	15	49	80	145
Semnan	1,289	344	26	58	2.5	86
Sistan & Baluchestan	952	1,760	2.3	17	85	105
Fars	3,181	2,470	84	249	76	409
Qazvin	799	115	75	182	95	352
Qom	268	61	29	56	23	110
Kurdistan	1,162	301	5.7	48	163	217
Kerman	1,200	1,251	35	81	16	132
Kermanshah	1,442	285	19	130	74	224
Kohgiluyeh & Boyer-Ahmad	553	889	5.7	35	24	65
Golestan	1,376	183	28	287	26	342
Gilan	693	95	4.3	99	225	329
Lorestan	1,786	781	11	187	48	247
Mazandaran	1,321	105	18	396	242	657
Markazi	1,327	216	28	225	15	269
Hormozgan	166	919	0.5	5.6	16	22
Hamedan	1,239	105	19	319	46	384
Yazd	389	389	52	91	15	159
South of Kerman	646	806	0.8	28	49	79
Total	44,664	17,731	1,262	4,750	2,044	8,057

Source: Agricultural Production Report

Table 4-3: Status of industrial cattle farms of the country in 2020

Description	Inactive	Active	Fattening	Diary	Total
Number	5,274	21,709	10,147	16,836	26,983

Source: Deputy Minister of Livestock Production

Table 4-4: Milk Production Chain

Description/ year	2019		2020		Total	
	Number	Annual production (tons)	Number	Annual production (tons)	Number	production (tons)
Licensed	15	287023	1	6200	16	293223
Ongoing	2	44228	4	27405	6	71633
Total (tons)	17	331251	5	33605	22	364856

Source: Deputy Minister of Livestock Production

Table 4-5: Red Meat Production Chain

Description/ year	2019		2020		Total	
	Number	Annual production (tons)	Number	Annual production (tons)	Number	production (tons)
Licensed	7	7031	1	583	8	7614
Ongoing	3	1959	1	1495	4	3545
Total (tons)	10	8990	2	2078	12	11159

Source: Deputy Minister of Livestock Production



Livestock operators

- ◆ 1 million and 487 thousand operators including:
 - ◆ 1 million 340 thousand livestock operators
 - ◆ 767886 operators only lightweight livestock
 - ◆ 320099 operators only heavyweight livestock
 - ◆ 252157 light and heavyweight livestock operators
- * One operator is considered for each industrial unit.

Livestock Production

Livestock production is categorized into red meat and milk. The total of red meat production reached 859,000 tons with a 3.6% growth, evaluated by distribution of mutton at 273,73 tons, purebred cattle at 86,980 tons, crossbred cattle at 287,760 tons, and native cattle with 109,880 tons, in the year ended March 2020.

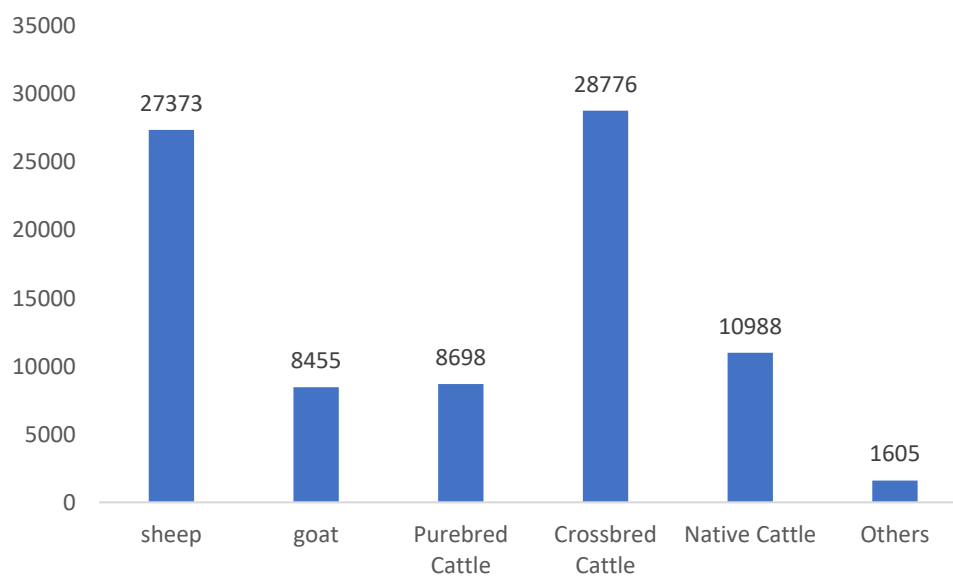
Total milk production reached 11,002 tons with a 3.9% growth which is evaluated by distribution of milk production' categorized into sheep 235,000 tons, goat 287,000 tons, purebred cattle 4,578,000 tons, crossbred cattle 5,184,000 tons, and native cattle 561,000 tons.

Table 4-6. Red Meat & Milk Production by Livestock - 000 tons

	Red meat	Milk
Sheep	273,73	235
Goat	84,55	287
Purebred Cattle	86,98	4578
Crossbred Cattle	287,76	5184
Native Cattle	109,88	561
Others	16,05	156
Total	859	11002

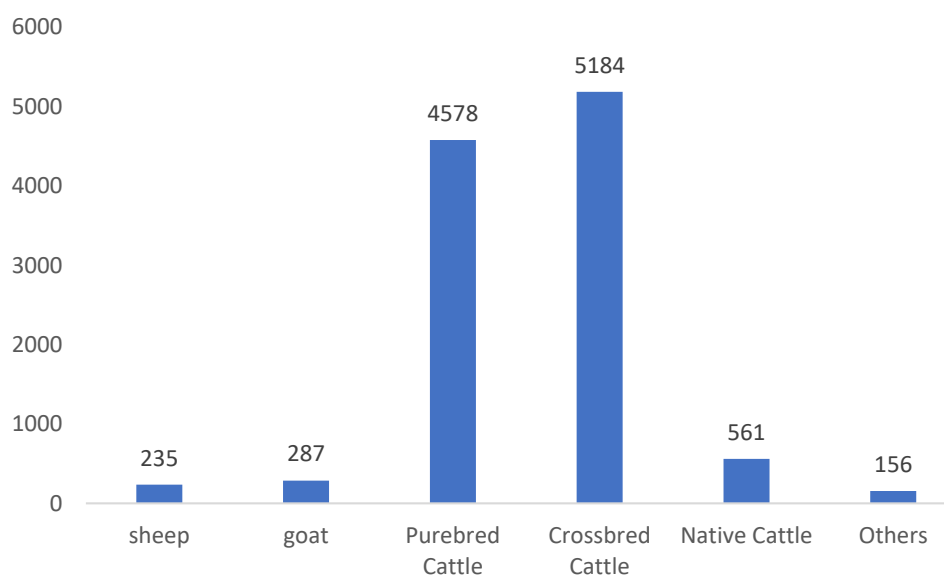
Source: Agricultural Production Report

Figure 4-2. Red Meat & Milk Production by Livestock - 000 tons



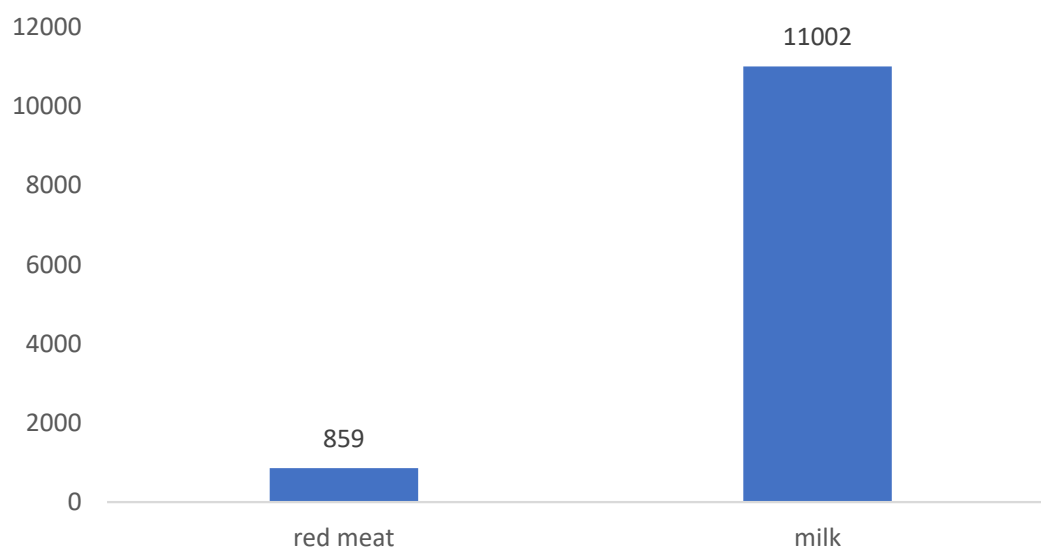
Source: Agricultural Production Report

Figure 4-3. Milk Production by Livestock - 000 tons



Source: Agricultural Production Report

Figure 4-4. Red Meat & Milk Production by Livestock - 000 tons



Source: Agricultural Production Report





Table 4-7: Iran's position in the production of animal products in the world in 2019 -000 tons

Product type	Iran's rank globally as per FAO	Iran's rank globally as per Iran's Animal Affairs Dept.
Red meat*	30	22
Chicken meat	10	8
Milk	23	18
Table Egg	17	10
Honey	5	3
Wet Cocoon	8	8

* The red meat encompasses lamb, goat, beef, buffalo, and camel.

Source: Deputy Minister of Livestock Production

Table 4-8. Milk and Red meat Products by Province -2021- 000 tons

	Milk	Red meat
East Azerbaijan	553,9	51,7
West Azerbaijan	393	47,09
Ardabil	276,2	29,4
Isfahan	1374,5	48,52
Alborz	411,3	11,72
Ilam	91,3	15,32
Bushehr	40,4	7,91
Tehran	1226,7	34,31
Chaharmahal & Bakhtiari	270	22,12
South Khorasan	116,4	14,19
Razavi Khorasan	1066,3	75,04
North Khorasan	104,3	15,86
Khuzestan	341,1	42,03
Zanjan	151	13,86
Semnan	166,4	14,14
Sistan & Baluchestan	70,5	19,91
Fars	633,4	62,33
Qazvin	572,8	26,68
Qom	143,8	11,96
Kurdistan	116,2	19,6
Kerman	225	21,94
Kermanshah	229	22,83
Kohgiluyeh & Boyer-Ahmad	75,8	11,06
Golestan	386	29,49
Gilan	180,7	23,17
Lorestan	252	28,92
Mazandaran	507,9	47,36
Markazi	304,2	25,03
Hormozgan	25,1	6,68
Hamedan	386,5	30,82
Yazd	256,1	14,84
South of Kerman	54,2	12,15
Total	11002	859

Source: Agricultural Production Report

In the year ended March 2018, Iran held the world 21st, 26th and 24th ranks in meat, red meat and milk production, respectively.

Table 4-9. Ranking in Agricultural Products - 2021

	Rank
Meat	21
Red Meat	26
Milk	24

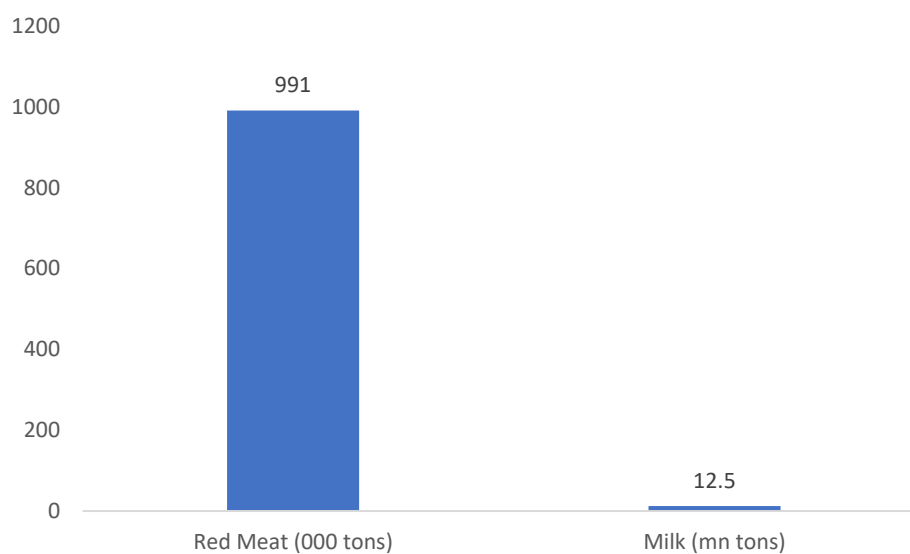
Source: FAO

Table 4-10. Livestock Production in the Vision of Sixth Development Plan

	Production
Red Meat (000 tons)	991
Milk (mn tons)	12.5

Source: Agricultural Production Report

Figure 4-5. Livestock Production in the Vision of Sixth Development Plan



Source: Agricultural Production Report



Products Consumption Per Capita

Total of livestock product consumption per capita was 189.3 Kilograms.

Table 4-11. Statistics of production, per capita production and per capita consumption of livestock products in 2021

Type of Product	Production (1000 MTN)	Per Capita Production (Kg/year)	Per Capita Consumption (Kg/year)
Red meat	909	10.8	10.95
Milk	11049	134.5	119.65
Chicken meat	2679	31.8	30.57
Table Egg	1155	13.7	12.14
Honey	115	1.37	1.35

Source: Agricultural Production Report



Livestock Production in the Vision of the Sixth Development Plan

Livestock production in the vision of the sixth development plan (2021) is anticipated at 991,000 tons and 12,500 tons of red meat and milk, respectively.

5 POULTRY SECTOR



Overview

Industrial poultry breeding has 140 years of history and many efforts have been made to develop poultry industrial production in terms of genetic improvement, genetic selection, treatment and veterinary.

Iran poultry industry has experienced considerable growth in terms of quality and quantity in the past 60 years ranking 11th and 19th globally in chicken and egg production, respectively.

Per capita consumption of chicken and egg was 31.26 Kilograms and 11.72 Kilograms with 9.75% and 5.4% growth, respectively showing the industry's importance and rankings in the Iranian food supply chain

Poultry Farming Capacity

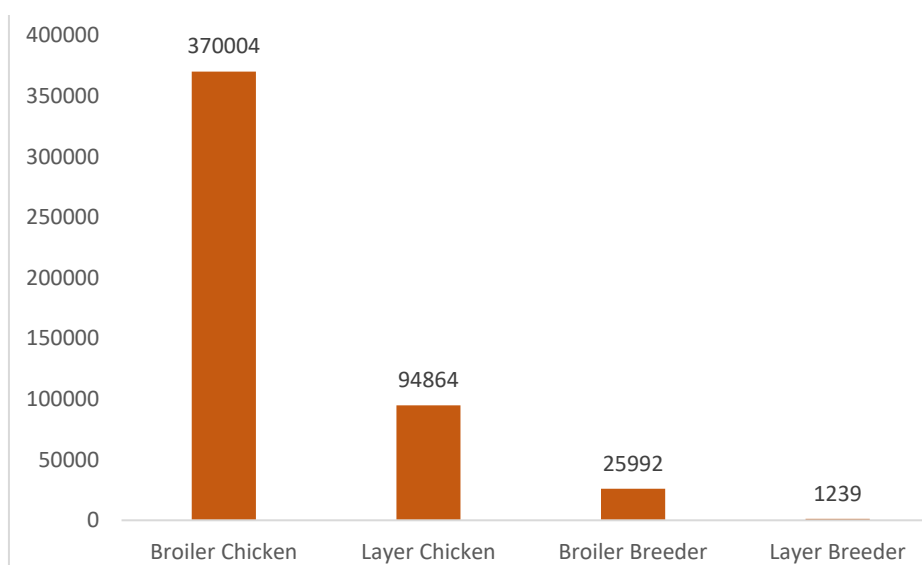
The capacity of 16,347 broiler farms is 370,004,000 chickens, 1,577 farms of which are active in Mazandaran with the capacity of 34,343 chickens. In Iran, a total of 1,710 layer chicken farms are active with the capacity of 94,864,000 chickens, of which 253 farms belong to Khorasan Razavi Province with capacity of 10,290,000 chickens. A total of 772 broiler breeder farms are active with the capacity of 25,992,000 chickens, of which 204 farms belong to Mazandaran Province with capacity of 6,223,000 chickens. A Total of 22 layer breeder farms are active with capacity of 1,239,000 chickens, of which 11 farms belong to East Azarbaijan and Khorasan Razavi Provinces with capacities of 317,000 and 208,000 chickens. Also, 3 farms belong to Qazvin Province with capacity of 303,000 chickens,. Layer pullet farms are divided in to two categories of independent and dependent pullets, a total of 319 independent pullet farms are active with capacity of 23,828,000 chickens, of which 67 farms belong to Qom Province with the capacity of 3,058,000 chickens. Also, a total of 19 dependent pullet farms have the capacity of 965,000 chickens, of which 6 farms belongs to Tehran Province with capacity of 389,000 chickens and 5 farms with capacity of 398,00 chickens to Golestan Province

Table 5-1. Production of meat from other poultries and indigenous chicken in 2020

Description	Turkey	Ostrich	partridge	Quail	Indigenous hen	Other indige- nous poultry	Total
Meat produc- tion (tons)	42658	3675	1852	7997	45805	26811	128798

Source: Deputy Minister of Livestock Production

Figure 5-1. Capacity of Poultry Farming- 000 chickens



Source: Agricultural Production Report

Table 5-2. Number and capacity of industrial broiler poultry farms in 2020

Description	No. of farms	Capacity (000 per cycle)
Broiler Grandparents, D line (No. of farms)	39	1548
Broiler breeder (total capacity)	782	29855
Broiler	16854	386891

Source: Deputy Minister of Livestock Production

Table 5-3. Number and capacity of industrial layer poultry farms in 2020

Description	No. of farms	Capacity (000 per cycle)
Grandparents Laying (D line)	2	16
Layer breeder (total capacity)	25	1701
Pullet	519	36433
Layer hens	1618	104499

Source: Deputy Minister of Livestock Production

Table 5-4. Capacity of Poultry Farming- 2021- 000 chickens

	Layer Breeder Chicken	Broiler Breeder Chicken	Layer Chicken	Broiler Chicken
East Azerbaijan	317	1516	8733	11,587
West Azerbaijan	0	1843	886	15,108
Ardabil	0	1885	698	6,940
Isfahan	32	621	11948	31,029
Alborz	104	311	8668	2,294
Ilam	0	0	0	6,497
Bushehr	0	0	40	6,056
Tehran	0	855	11721	4,383
Chaharmahal & Bakhtiari	0	157	212	4,688
South Khorasan	0	260	2044	9291
Razavi Khorasan	208	672	10290	25972
North Khorasan	0	0	55	2592
Khuzestan	0	248	537	16583
Zanjan	80	829	894	6433
Semnan	0	213	2323	9120
Sistan & Baluchestan	0	47	599	5381
Fars	0	375	3521	25843
Qazvin	303	1089	9327	8989
Qom	60	154	7814	4330
Kurdistan	0	441	555	14098
Kerman	0	358	1441	8878
Kermanshah	0	308	1050	8946
Kohgiluyeh & Boyer-Ahmad	0	0	210	1972
Golestan	0	2284	1001	30310
Gilan	99	3723	36	19577
Lorestan	0	255	806	12950
Mazandaran	0	6223	1139	34343
Markazi	0	643	4234	10906
Hormozgan	0	65	10	6071
Hamedan	35	405	1867	8974
Yazd	0	212	2104	9607
South of Kerman	0	0	100	256
Total	1239	25992	94864	370004

Source: Agricultural Production Report

Chicken & Egg Production

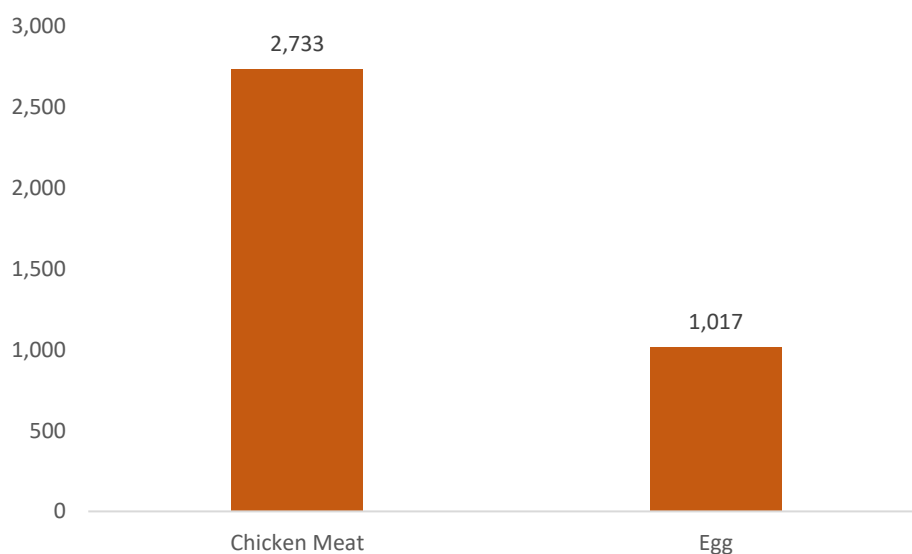
The poultry production industry is divided into two categories of chicken and egg. The total of chicken meat production reached 2,733,000 tons with 16.1 % increase in the year ended March 2020. In addition, the total egg production reached 1,017,00 tons with 12.8 % increase.

Table 5-5. Chicken Meat & Egg Production-2020-000 tons

	Production
Chicken Meat	2,733
Egg	1,017

Source: Agricultural Production Report

Figure 5-2. Chicken Meat & Egg Production-2020-000 tons



Source: Agricultural Production Report

Chicken & Egg Production in the Vision of the Sixth Development Plan

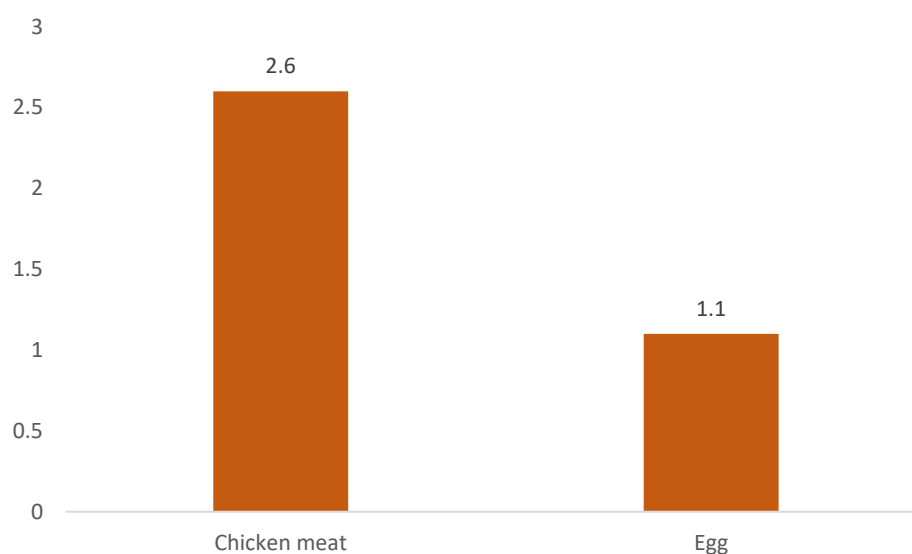
The volume of chicken and egg production, in the vision of sixth development plan, is predicted at 2.6 million tons and 1.1 million tons respectively.

Table 5-6. Chicken & Egg Production in Vision of Sixth Development Plan-mn tons

	Production
Chicken meat	2,6
Egg	1.1

Source: Agricultural Production Report

Figure 5-3. Chicken & Egg Production in Vision of Sixth Development Plan-mn tons



Source: Agricultural Production Report

Products Consumption Per Capita

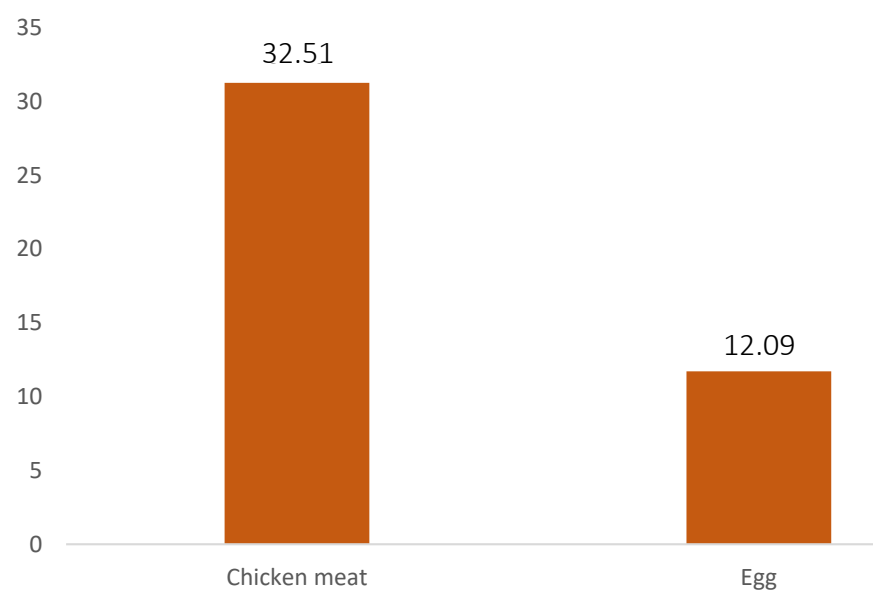
The total chicken and egg consumption per capita reached 31.26 kilograms with a 9.75% rise and egg consumption per capita reached 11.72 kilograms with a 5.4 % rise in the year ended March 2021

Table 5-7. Chicken Meat & Egg Consumption Per Capita-kg

	Consumption
Chicken meat	32.51
Egg	12.09
Total	44.6

Source: Agricultural Production Report

Figure 5-4. Chicken Meat & Egg Consumption Per Capita-kg



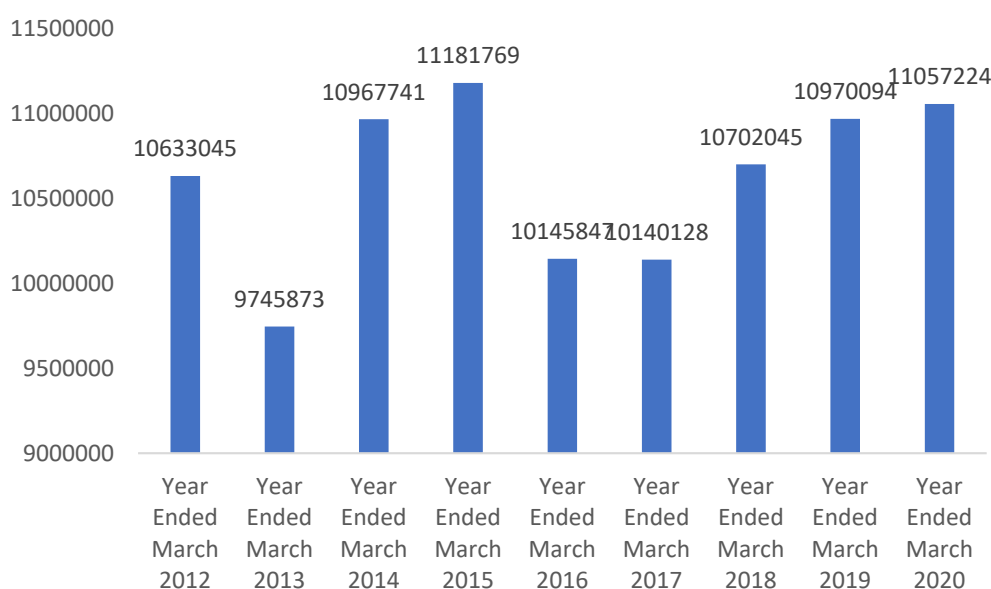
Source: Agricultural Production Report



Brooding at Broiler Breeder Farms

The Unsteady and unstable trend of brooding at broiler breeder farms entered a period of restrictions and rationing from the year ended March 2015, after which in recent years the trend became more stable, with a 2% annual increase in productivity. Brooding on Broiler Breeder Farms has been one of the most significant statistics of the industry and has direct and specific effect on the production of chicken and day-old chicks

Figure 5-6. Brooding at Broiler Breeder Farms - Day-old chick



Source: Agricultural Production Report

Export

Table 5-8. Comparative statistics of Export of poultry meat and eggs in 2021&2020

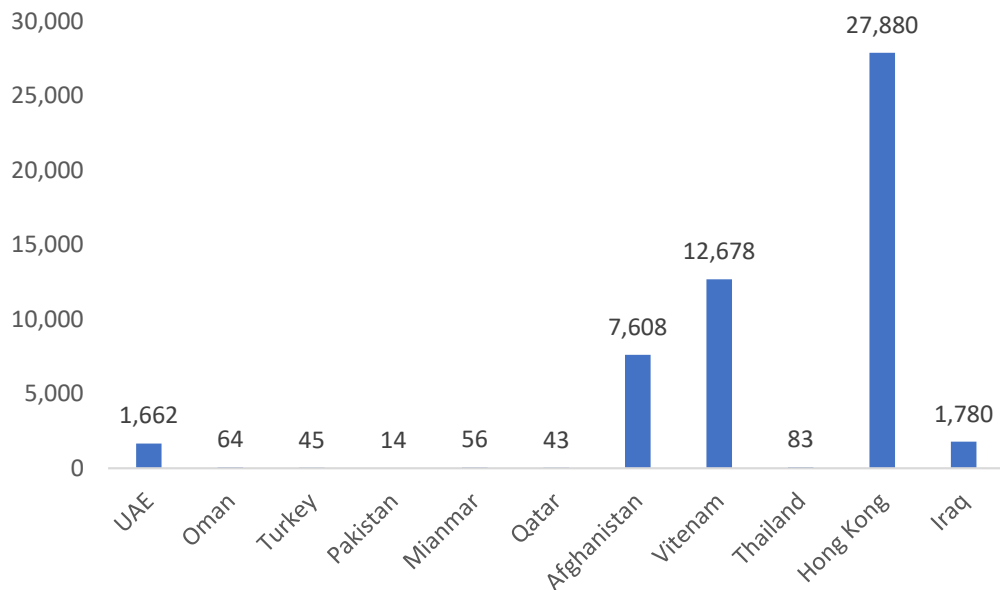
		2021		2020		Change (%)	
		Volume 000 MT	Value Million USD	Volume 000 MT	Value Million USD	Volume	Value
Poultry Meat	Poultry Meat	0.03	0.01	54.73	68.24	-99.95	-99.99
	Entrails	25.01	8.37	22.11	13.2	13.13	-36.62
	Total	25.04	8.37	76.83	81.44	-67.41	-89.71
Eggs	Table Eggs	8.06	5.32	61.99	37.11	-87	-85.68
	Fertile Eggs	0.07	0.23	3.51	6.05	-97.94	-96.25
	Total	8.13	5.54	65.49	43.16	-87.59	-87.16

Source: Information and Communication Technology Center-Ministry of Agriculture-Jahad

Brooding

In 2020, brooding at various stages was at a greater rate than usual due to the eradication of layer breeders. A total of 43,902,262 chicks were bred, of which 1,512,433 were imported as fertilized eggs.

Figure 5-7. Export by Destination of Poultry Meat and Entrails 2020-tons



Source: Agricultural Production Report

In the year ended March 2019, a total of 1,330,000,000 chicks were bred and Mazandaran province gained the top rank in breeding with 133,000,000 chicks and Golestan, Isfahan, and Razavi Khorasan followed it.

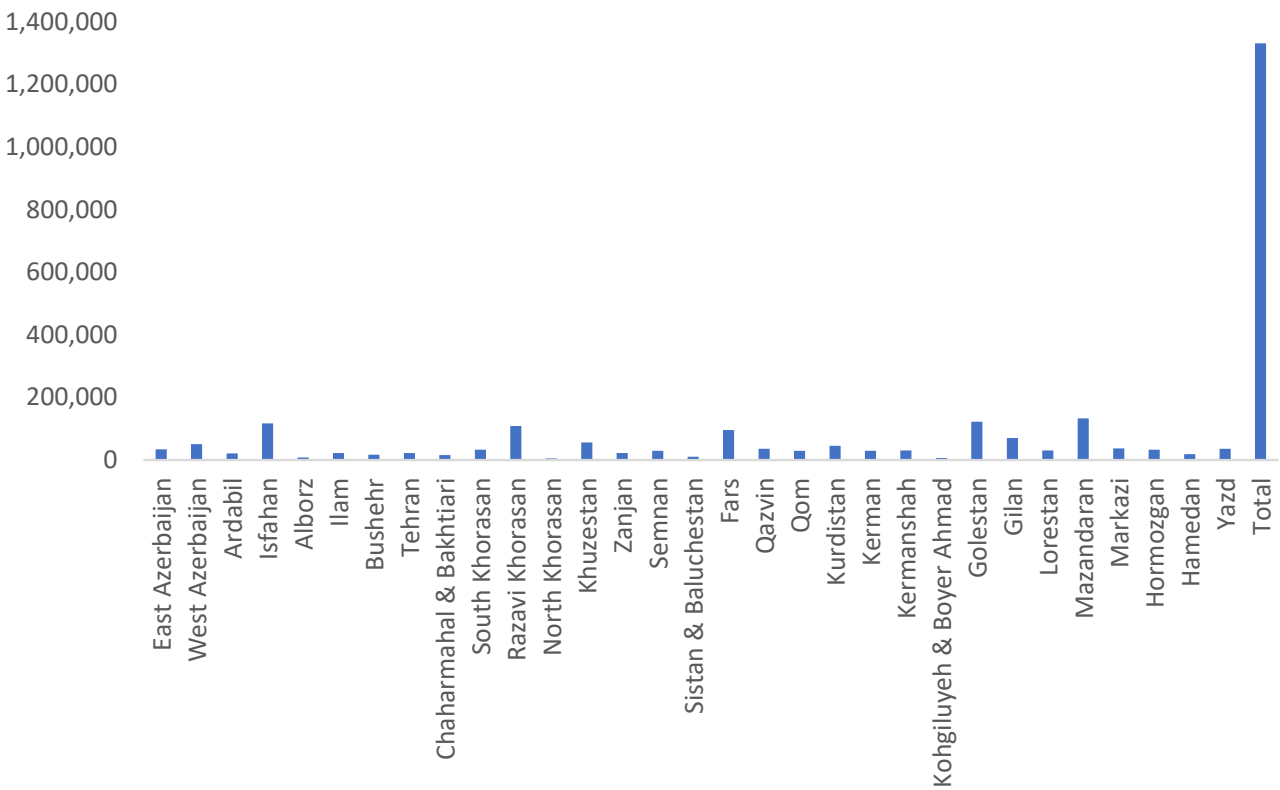


Table 5-9. Brooding by Province- Yr. ended Mar. 2019

Province	000 Chicks
East Azerbaijan	34,240
West Azerbaijan	50,540
Ardabil	21280
Isfahan	117040
Alborz	7980
Ilam	22610
Bushehr	17290
Tehran	22610
Chaharmahal & Bakhtiari	15960
South Khorasan	33250
Razavi Khorasan	109060
North Khorasan	5320
Khuzestan	55860
Zanjan	22610
Semnan	29260
Sistan & Baluchestan	10640
Fars	95760
Qazvin	35910
Qom	29260
Kurdistan	45560
Kerman	29260
Kermanshah	30590
Kohgiluyeh & Boyer Ahmad	6650
Golestan	122360
Gilan	70490
Lorestan	30590
Mazandaran	133000
Markazi	37240
Hormozgan	33250
Hamedan	18620
Yazd	35910
Total	1330000

Source: Agricultural Production Report

Figure 5-8. Brooding by Province- Yr. ended Mar. 2019



Source: Agricultural Production Report

Export of Day-Old Chick

On January 2019, 27,712,649 day-old chicks at 1,330,207 kilograms weight and 8,371,275 USD value were exported to Armenia, Afghanistan, Turkmenistan, Iraq, Azerbaijan. Azerbaijan, Armenia, Afghanistan, and Turkmenistan had the highest export value at 1,332,818 USD. Afghanistan had the highest export value of day-old chicks among the export destinations.

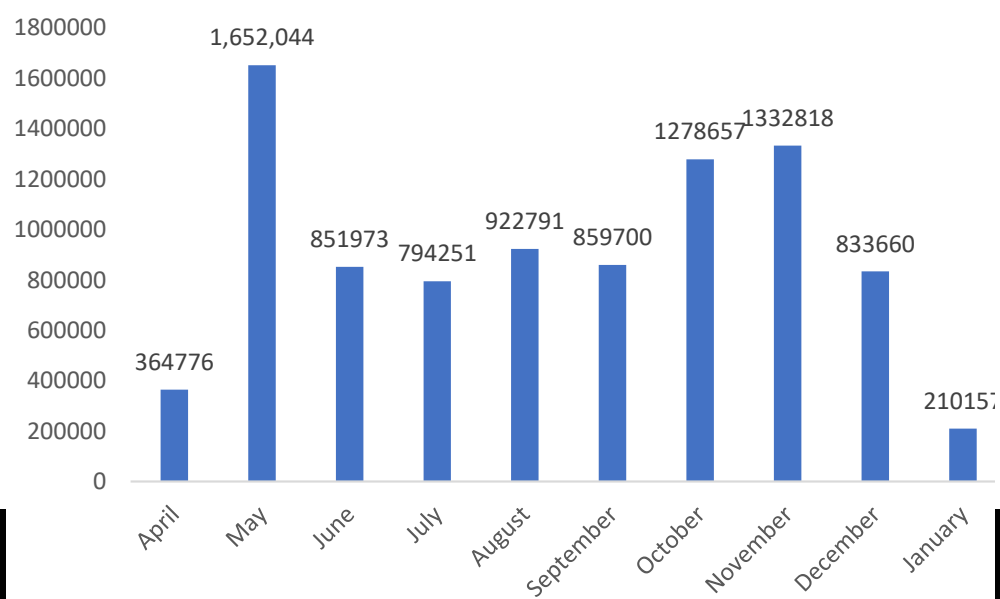


Table 5-10. Value & Volume of Day-Old Chick Export- Apr. 2018 - Jan. 2019

Month	Export Destination	Value (USD)	No.	Weight (kg)
April	Armenia	116,376	364,792	17,510
	Afghanistan	215,400	716,146	34,375
	Turkmenistan	33,000	102,292	4,910
	Sum	364,776	1,183,230	56,795
May	Armenia	136,776	424,833	20,392
	Afghanistan	465,366	1,562,479	74,999
	Turkmenistan	107,370	365,625	17,550
	Iraq	212,980	935,042	44,882
	Sum	1,652,044	3,287,979	157,823
June	Armenia	107,965	391,208	18,778
	Afghanistan	525,288	1,862,396	89,395
	Turkmenistan	205,920	637,917	30,620
	Iraq	12,800	31,625	1,518
	Sum	851,973	2,923,146	140,311
July	Armenia	134,661	440,583	21,148
	Afghanistan	459,940	1,785,063	85,683
	Turkmenistan	199,650	657,875	31,578
	Sum	794,251	2,883,521	138,409
August	Armenia	130,212	474,417	22,772
	Afghanistan	491,859	1,610,771	77,317
	Turkmenistan	300,720	977,333	46,912
	Sum	922,791	3,062,521	147,001
September	Azerbaijan	13,950	50,000	2,400
	Armenia	107,418	334,458	16,054
	Afghanistan	430,862	1,439,464	69,103
	Turkmenistan	307,470	992,688	47,649
	Sum	859,700	2,816,610	135,206
October	Azerbaijan	11,880	41,667	2,000
	Armenia	158,087	518,125	24,870
	Afghanistan	683,130	2,223,292	106,718
	Turkmenistan	425,560	1,248,833	59,944
	Sum	1,278,657	4,031,917	193,532
November	Azerbaijan	155,774	482,042	23,138
	Armenia	162,889	517,104	24,821
	Afghanistan	674,839	2,348,354	112,721
	Turkmenistan	339,316	1,032,708	49,570
	Sum	1,332,818	4,380,208	210,250
December	Azerbaijan	74,478	229,063	10,995
	Armenia	91,412	285,104	13,685
	Afghanistan	529,302	1,582,188	75,945
	Turkmenistan	138,468	419,375	20,130
	Sum	833,660	2,515,730	120,755
January	Armenia	46,081	133,792	6,422
	Afghanistan	118,470	360,063	17,283
	Turkmenistan	45,606	133,750	6,420
	Sum	210,157	627,605	837,762
Total		8,371,275	27,712,649	1,330,207

Source: Agricultural Production Report

Figure 5-9. Value of Day-Old Chick Export by month- USD, Yr. ended Jan. 2019



Source: Agricultural Production Report







6 FISHERY SECTOR



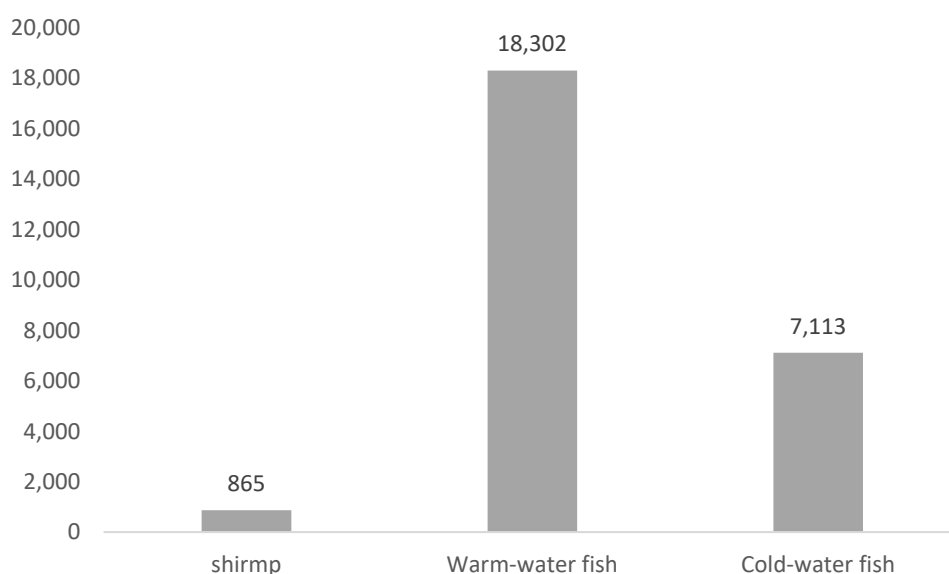
Overview

The Fishery sector has an important share in both providing food for society and in balancing the ecosystem. The Food and Agriculture Organization (FAO) has defined a significant role for aquaculture in the future in terms of food supply, employment, foreign currency gains and rural development. Fish is crucial to a nutritious diet in many areas across the world. Fish provided about 3.3 billion people with almost 20 percent of their average per capita intake of animal protein.

Shrimp & Fish Farms Status

Warm-water fish farms reached a total of 18,302 (3.07% rise) units with production reduced to 216,152 tons (11.98% growth) in the year ended March 2020. Cold-water fish farms stood at 7,113 (8.53% rise) units, the production volume reaching 182,601 tons (5.04% rise). The highest number of warm-water fish farms was 5,311 (an area of 11,100 hectares) in Gilan Province, 714 cold-water fish farms in Zanzan Province (669,799 hectares) and 439 shrimp farms (5431 hectares) in Hormozgan Province.

Figure 6-1. Fish & Shrimp Farms - 2020



Source: Agricultural Production Report

Table 6-1. Fish & Shrimp Farms by Province - 2020

Province	Shrimp	Warm-water fish	Cold-water fish
East Azerbaijan	-	126	4,932
West Azerbaijan	-	980	8,000
Ardabil	-	847	3,998
Isfahan	-	1,036	8,420
Alborz	-	99	2,194
Ilam	-	885	2,202
Bushehr	21,767	-	-
Tehran	-	806	5,496
Chaharmahal & Bakhtiari	-	-	19,840
South Khorasan	-	1,188	48
Razavi Khorasan	-	2,263	9,467
North Khorasan	-	333	1,900
Khuzestan	208	66,360	1,000
Zanjan	3	107	14,894
Semnan	-	515	747
Sistan & Baluchestan	1,650	38	-
Sistan (Zabol)	-	1,415	169
Fars	-	1,380	-
Qazvin	-	382	3,283
Qom	0.4	1,034	680
Kurdistan	-	29	4,100
Kerman	-	968	1,496
Kermanshah	13	4,535	13,430
Kohgiluyeh & Boyer-Ahmad	-	-	16,560
Golestan	405	16,013	952
Gilan	-	43,362	952
Lorestan	-	1,906	18,152
Mazandaran	-	64,646	15,341
Markazi	-	131	6,069
Hormozgan	22,084	620	-
Hamedan	-	1,073	4,358
Yazd	-	518	558
South of Kerman	-	2,504	398
Total	46,130.4	216,153	182,601

Source: Agricultural Production Report

Aquaculture Production

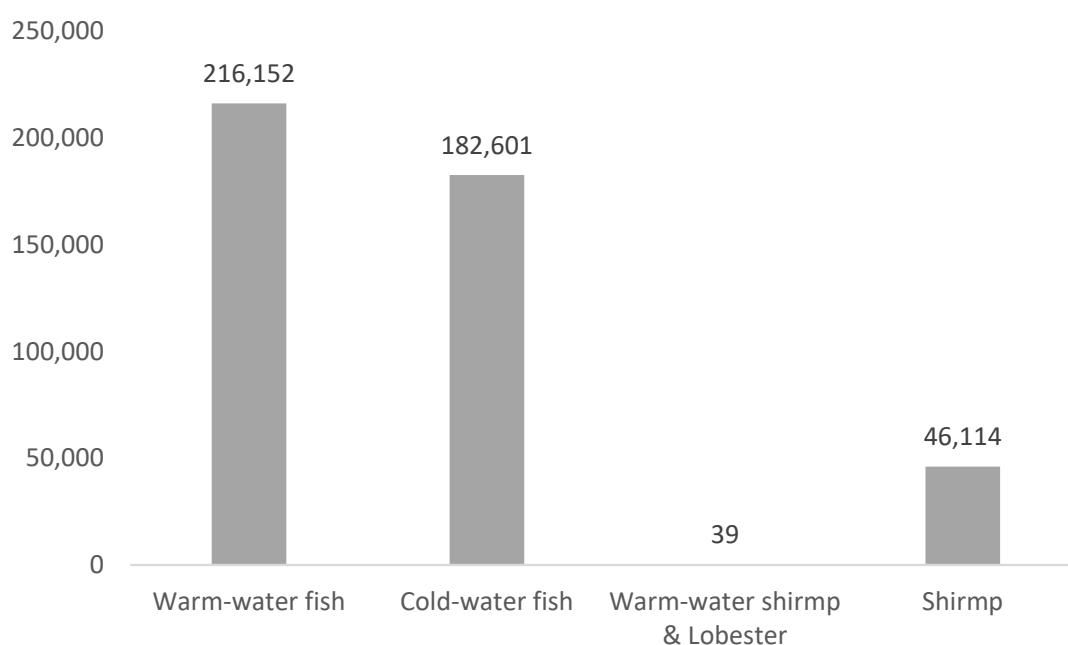
The total amount of fish production was 460,771 tons, including 216,152 tons warm-water fish, 182,601 tons cold-water fish, 39 tons fresh-water shrimps and lobsters, as well as 46,114 tons shrimps in the year ended March 2020. Mazandaran, Chaharmahal & Bakhtiari, Kermanshah, and Hormozgan ranked 1st with 64,646 tons warm-water fish, 19,840 tons cold-water fish, 13 tons fresh-water shrimps, and 22,084 tons shrimp production, respectively.

Table 6-2. Aquaculture Production - 2020 -tons

	Production
Warm-water fish	216,152
Cold-water fish	182,601
Warm-water shirmp & Lobester	39
Shirmp	46,114
Total	460,771

Source: Agricultural Production Report

Figure 6-2. Aquaculture production- 2020 - tons



Source: Agricultural Production Report

Fish & Shrimp Production

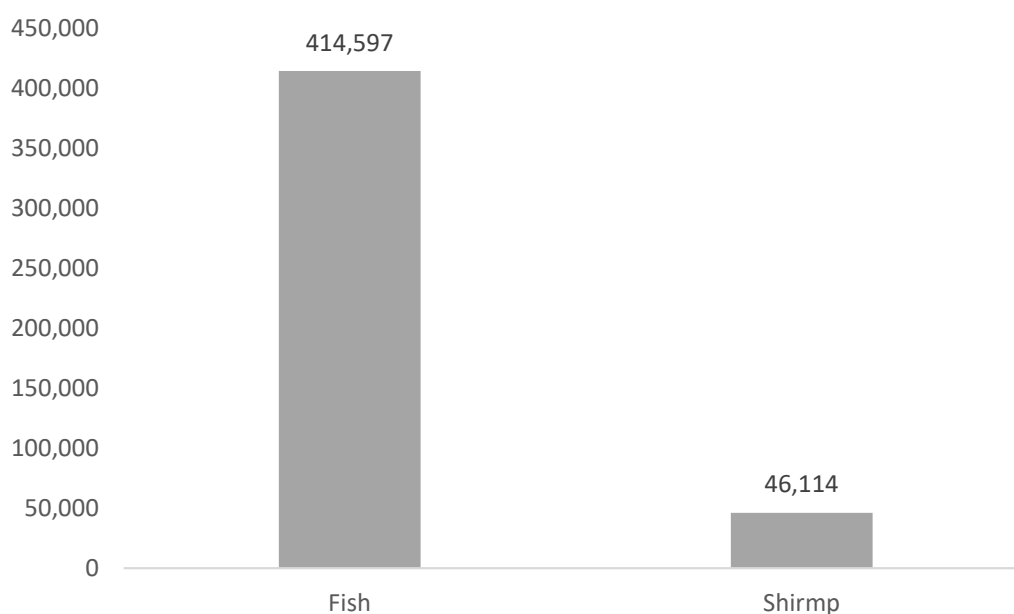
In the year ended March 2020, fish and shrimp production reached 414,597 and 46,114 tons with 0.3% rise and 18.5% decline, respectively.

Table 6-3. Fish & Shrimp Production-2020-tons

	Production
Fish	414,597
Shrimp	46,114

Source: Agricultural Production Report

Figure 6-3. Fish & Shrimp Production- 2020 -tons



Source: Agricultural Production Report

Products Consumption Per Capita

In the year ended March 2020, the total of consumption per capita of aquatic products was 13.3 kilograms (0.09% increase), and aquatic protein consumption increased 6.88 grams per day. Table 6-4. Aquatic

Table 6-4. Aquatic Products & Protein Consumption Per Capita - 2020

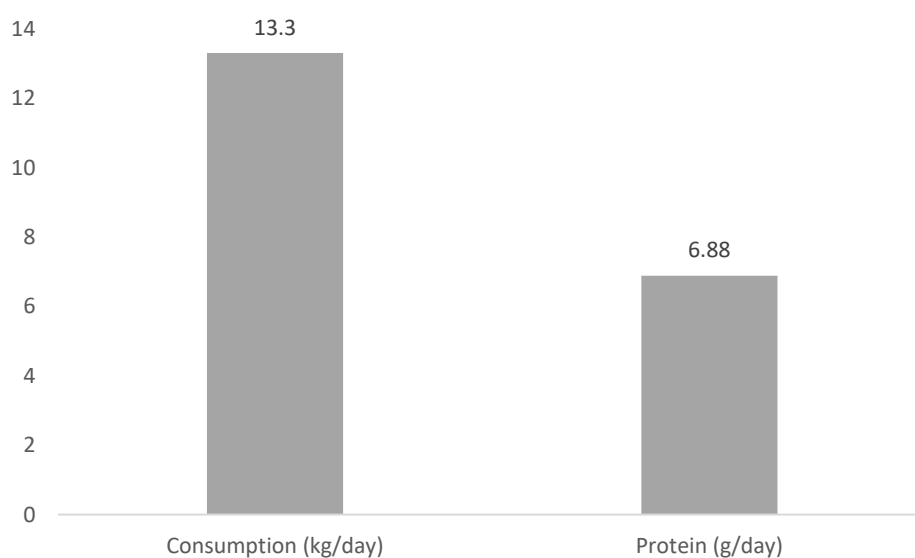
	Consumption
Consumption per Capita (kg/day)	13.3
Protein (g/day)	6.88

Source: Agricultural Production Report





Figure 6-4. Aquatic Products & Protein Consumption Per Capita - 2020



Source: Agricultural Production Report

Import and Export

Table 6-5. Comparative statistics of import of fishery products in 2021&2020

	2020		2021		Change (%)	
	Volume MT	Value Thousand USD	Volume MT	Value Thousand USD	Volume	Value
Total	11463	31936	19757	47559	-42	-33

Source: Information and Communication Technology Center-Ministry of Agriculture-Jahad

Table 6-6. Comparative statistics of export of fishery products in 2021&2020

	2020		2021		Change (%)	
	Volume MT	Value Thousand USD	Volume MT	Value Thousand USD	Volume	Value
Total	110659	208658	121.414	221020	9.7	6

Source: Information and Communication Technology Center-Ministry of Agriculture-Jahad



Future requirements

Table 6-7. subsidized inputs required for aquatic feed production forecast for 2022-2025 (thousand tones)

	Input	year				
		2021	2022	2023	2024	2025
1	Soybean Meal 20%	182	154	184	236	374
2	Wheat 10%	91	77	92	118	187
3	Barley 8%	73	62	74	94	150
4	Maize	55	46	55	71	112

Source: Iran Fisheries Organization

Table 6-8. Aquafeed required for aquaculture forecast for 2022-2025 (thousand tones)

	Input	year				
		2021	2022	2023	2024	2025
1	Tropical fishes-2	183.4	196	206.5	224	250.6
2	Cold water fishes-1.3	275.6	288.6	301.6	318.5	344.5
3	Water sources (Tropical)-2	49.973	63	70	77	98
4	Caviar fishes-1.4	7	14	18.9	23.8	28
5	Tilapia-2	-	5.4	16.4	47	114
6	Sea fishes (pool)-2	-	2	4	14	20
7	Sea fishes (cage)-1.4	280	56.6	117.6	253.4	700
8	Aquaculture shrimp	84	98	126	147	224
9	other	30	45	60	75	90
Total feed required		909.973	768.6	921	1179.7	1869.1

Source: Iran Fisheries Organization







7 ANIMAL HEALTH & SANITARY

Animal Hygiene

Health issues, relating to the animal husbandry industry, are among the most significant management factors for livestock health and economic expenditures, and therefore, applying hygiene standards and using effective tools and the right products, guarantees efficient management and increases production efficiency. In other words, maintaining hygiene standards ensures livestock health and avoiding heavy expenditure.

Animal Inoculation

Livestock is inoculated to immunize against bacterial diseases (Charbon, tetanus, blackleg, theileriosis, Pasteurellosis, enterotoxaemia, gangrene, agalactia and leptospirosis) and viral diseases (HFMD, smallpox, PPR, LSD, etc.).

In the year ended March 2020, 128,339,827 and 156,194,898 inoculations were injected for bacterial and viral diseases, respectively.

Table 7-1. Inoculation-Yr. ended Mar. 2020

Type	Disease	
Cattle, Buffalo, Sheep, Goat	Bacterial (Charbon)	25,364,372
Others	Bacterial (Charbon)	43,798
Odd-toed Ungulate	Bacterial (tetanus)	5,967
Cattle, Calf, Sheep, Goat	Bacterial (blackleg)	1,089,360
Cattle & Buffalo	Bacterial(theileriosis)	173,701
Cattle, Buffalo, Sheep, Goat	Bacterial(Pasteurellosis)	3,409,562
Others	Bacterial (Pasteurellosis)	0
Cattle, Buffalo, Sheep, Goat	Bacterial (enterotoxaemia)	69,065,216
Sheep & Goat	Bacterial (gangrene)	14,067,622
Sheep & Goat	Bacterial (agalactiae)	15,118,298
Cattle, Buffalo, Sheep, Goat	Bacterial (leptospirosis)	0
Cattle, Buffalo, Sheep, Goat	Virus (HFMD)	64,924,251
Sheep & Goat	Virus (smallpox)	54,614,332
Sheep & Goat	Virus (PPR)	32,684,457
Cattle	Virus (LSD)	3,971,858
Total	284,534,725	

Source: Agricultural Statistics

Supervision on Livestock Products

In the year ended March 2020, supervision took place on 2,521,514 producers of livestock.

Zoonotic Diseases

Brucellosis is one of the most common zoonotic diseases. Brucella is the main disease factor that can spread widely from animals to humans. The bacterium is very commonly found in wild and domestic mammals and is constantly a risk factor in terms of economy and healthcare .

In the year ended March 2020, 1,996,000 cases of Brucellosis were diagnosed in tested livestock, of which 2,561,593 were cattle and calves and 13,274,781 were sheep and goat that were vaccinated by IRIB and ver1 vaccines, respectively. Moreover, 472,513 animals were vaccinated against rabies, including watch dogs and cats.

Livestock Contagious Disease

Livestock are inoculated annually against contagious and viral diseases. The main contagious diseases are HFMD, Smallpox, Charbon, etc.

Livestock Disease Control

To eradicate Bovine TB totally, 1,254,725 Tuberculin tests were taken from cattle showing 0.043 % of positive coefficient reactors in the year ended March 2020. Additionally, 2,494 livestock were given Mallein tests to eliminate glanders.

Table 7-2. Livestock Disease Control- Yr. ended Mar. 2020

	Type	Disease	
Inoculated Cattle & Calf (IRIB)	-	Brucellosis	2,561,593
Inoculated Sheep & Goat	-	Brucellosis	13,274,781
Bovine TB test (negative)	-	Bovine TB	1,254,182
Bovine TB Test No. Positive Reactor	-	-	543
Total Vaccination by Type	Cattle, Sheep, Goat	Rabiesg	33,455
Total Vaccination by Type	Others	Rabiesg	472,513
Mallein Test	-	Glander	2,494

Source: Agricultural Statistics

Livestock Parasitic Diseases Control

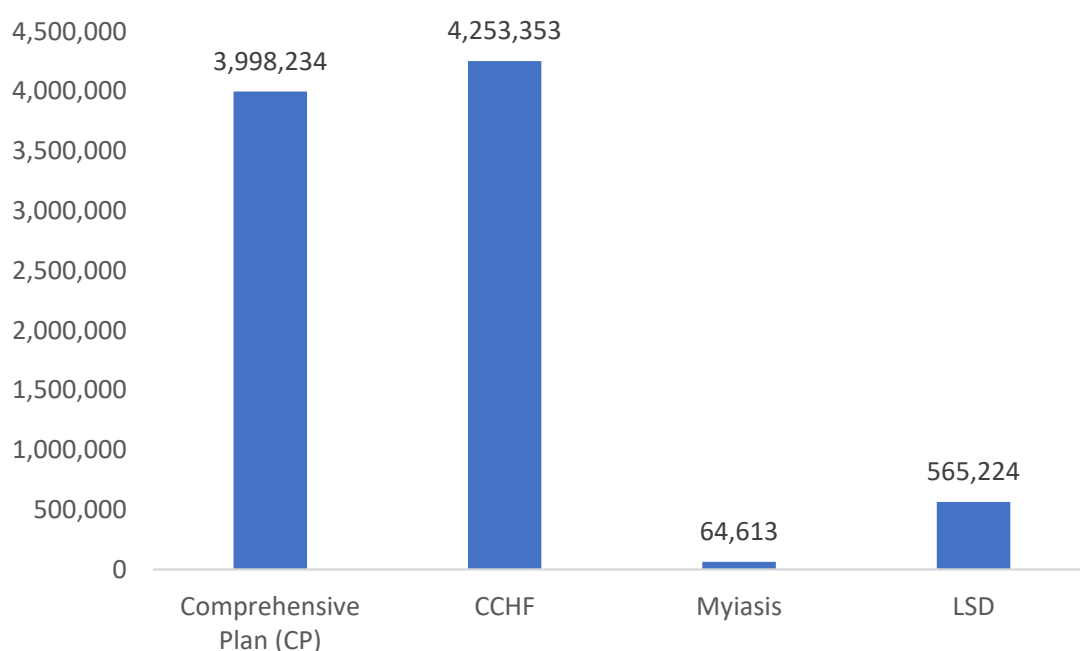
In the year ended March 2020, 8,884,424 livestock located in 39,676,809 m2 were poison prayed to control parasitic disease (cattle, calf, sheep and goat).

Table 7-3. Livestock Parasitic Diseases Control-Yr. ended March 2020.

	Type	
Comprehensive Plan (CP)	Cattle, Buffalo, Sheep, Goat	3,998,234
CCHF	Cattle, Buffalo, Sheep, Goat	4,253,353
Myiasis	Cattle, Buffalo, Sheep, Goat	64,613
LSD	Cattle, Buffalo, Sheep, Goat	565,224
Total	Cattle, Buffalo, Sheep, Goat	8,884,424

Source: Agricultural Statistics

Figure 7-1. Livestock Parasitic Diseases Control-Yr. ended March 2020.



Source: Agricultural Statistics

Broiler Pullet Disease Status

Newcastle, IBD, Bronchitis IBV and influenza are among the most common avian diseases. Based on the number of birds carrying disease, animal losses by Influenza, Bronchitis IBV, Newcastle, and IBD are estimated at 23.36, 20.32, 24.63, and 20.35, respectively.

Table 7-4. Broiler Pullet Disease Status

	IBD	Newcastle	Bronchitis IBV	Influenza
Broiler Pullet Stroke Disease in Flock (no)	65,000	5,644,340	4,002,194	525,550
Broiler Pullet Stroke Disease in Flock (%)	20.35	24.63	20.32	23.36

Source: Agricultural Production Report

Aquaculture & Fish Farms Hygiene Status

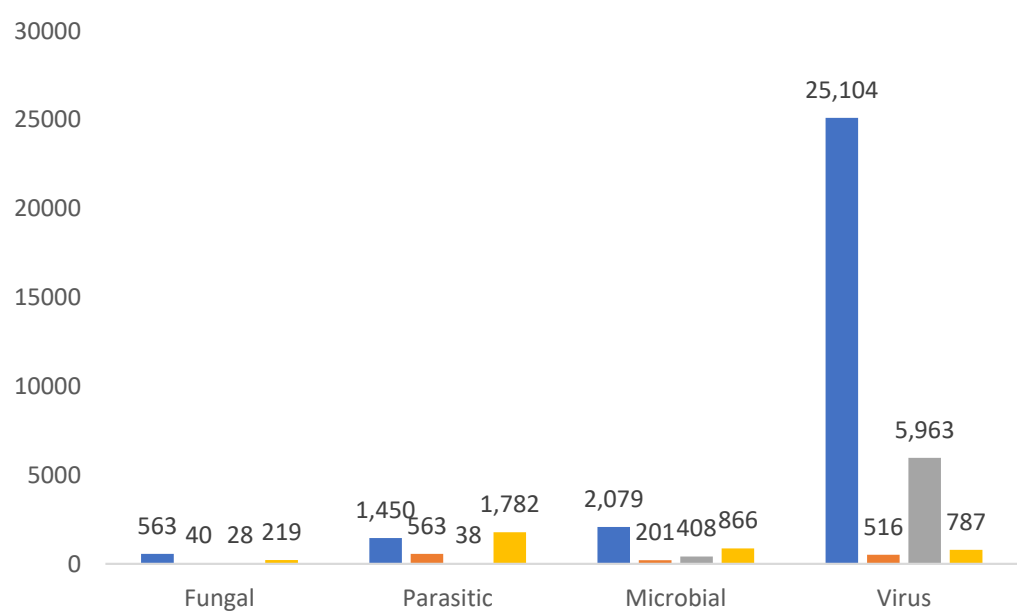
In the year ended March 2020, 281,508 tests were conducted at aquaculture and fish farms divided into cold-water fish farms 60,878 tests, warm water fish farms 1,565 tests and shrimp farms 213,388 tests. Furthermore, 5,677 tests were given to other aquatic animals such as ornamental, sturgeon, and sea animals.

Table 7-5. Aquaculture & Fish Farms Hygiene Status

Type	Total Tests by Division				
	Tests	Fungal	Parasitic	Microbial	Virus
Cold Water Fish Farms	60,878	563	1,450	2,079	25,104
Warm Water Fish Farms	1,565	40	563	201	516
Shrimp Farms	213,388	28	38	408	5,963
Others	5,677	219	1,782	866	787
Total	281,508	850	3,833	3,554	32,370

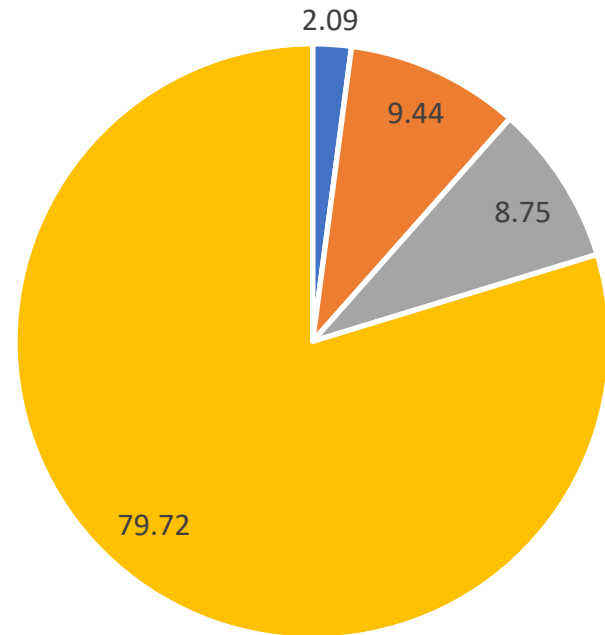
Source: Agricultural Statistics

Figure 7-2. Aquaculture & Fish Farms Hygiene Status- Yr. ended March 2020



Source: Agricultural Production Report

Figure 7-3. Total Tests by Division -%



Source: Agricultural Production Report

8

ANIMAL FEED TECHNOLOGY IN IRAN



Production Line of Animal Feed & Concentrate

Recently, ready-made feed, applied as animal feed in order to gain value added as well as facilitate progress, has increased in volume with the recycling of industrial and agricultural wastes. Supplying animals with ready-made feed could prevent diseases due to lack of pollution in the feed. A group of economically desirable substances (not available in one feed type) may be mixed, with the concentrate having a combination of vital nutrition for the animal. The concentrate may consist of cotton meal proteins, carbohydrate (prepared from grain, molasses, and beet pulp), fat, minerals and vitamins. By increasing the role of ready-made feed in husbandry economy, determining feed stuff value as well as providing farm animal feed requirements, important issues such as researches in the husbandry industry, preparing healthy feed, covering total nutrition needs can be advanced. Deficiency in protein, minerals, vitamins, and energy percentages leads to inefficiency and animal diseases. Thus, utilizing technology in mills will increase the ratio of animal production in comparison to the animal feed given and allows further standardization, leading to further production as well as less consumption of raw materials. Reaching the world standards allows cheaper and higher quality animal products.

History of Animal Feed Industry

The animal feed industry has been active for 70 years, has experienced 4 generations of technology and possesses a total of 250 old, deteriorating and inefficient mills, dating back 20 years or closed down. Most feed mills established in the last 15 years, are active and competing based on modern global standards & models and have experienced significant growth in terms of quality and quantity, reaching full capacity in the last two decades.

About 400 animal feed mills were active with a nominal capacity of 10 million tons and an actual capacity of 3 million tons in the year ended March 2008, and this number reached 700 mills with a nominal capacity of 21 million tons and actual capacity of 10 million tons by 2019. In addition the technology and quality of the mills has also increased in the last 10 years.

An average of 30 mills were established with suitable technology and a nominal capacity of over 30,000 tons as well as high efficiency in the last decade. Nominal and actual capacities have increased 2 fold and 3.3 times, respectively.

Moreover, most of the mills have ISO, GMP, and TUV licenses with most others new national and international standards.

The trend of animal feed mills in the past 65 years ago:

- ◆ Yr. ended March 1953: establishment of the first mill
- ◆ Yr. ended March 1977: 19 mills and nominal capacity of 314 thousand tons
- ◆ Yr. ended March 1983: 133 mills and nominal capacity of 2.6 million tons
- ◆ Yr. ended March 1999: 214 mills and nominal capacity of 4.2 million tons
- ◆ Yr. ended March 2008: 410 mills and nominal capacity of 10 million tons
- ◆ Yr. ended March 2013: 517 mills and nominal capacity of 17 million tons
- ◆ Yr. ended March 2018: 700 mills and nominal capacity of 21 million tons

The nominal capacity of animal feed mills was estimated at about 21 million tons from 700 mills and the applied capacity was about 6,300,000 tons for ruminantia, 4200,000 tons for poultry and total of 10,500,000 tons for the year ended March 2019.

The total value of animal feed mills investment was estimated at about 2.6 billion USD and value of animal feed production was 5.5 billion USD although no international investment has been undertaken in the industry.





9 ANIMAL FEED INDUSTRY IN THE WORLD



Fastest Growing Regions

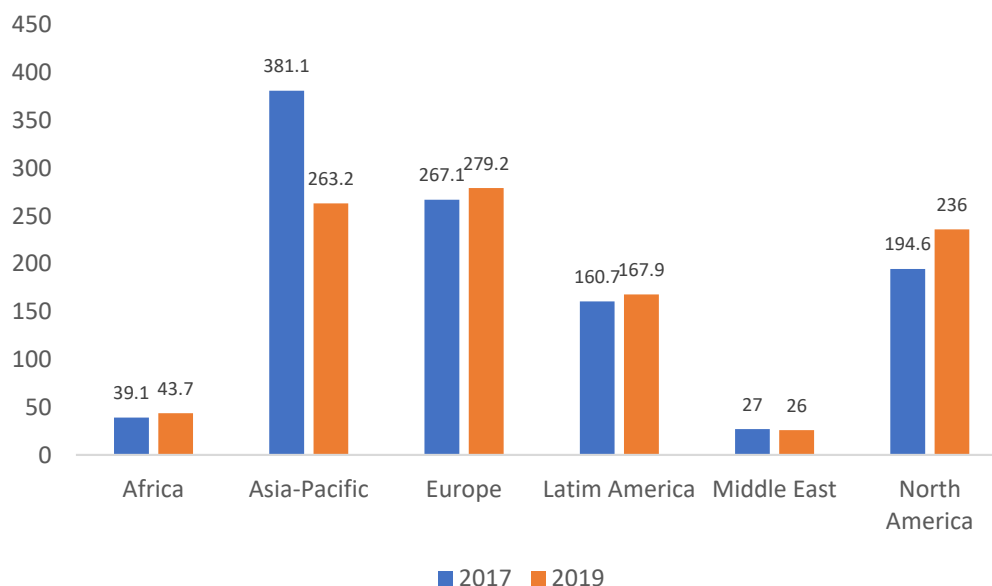
Latin America and Africa tied for the title of the fastest-growing region, each at a 2.2% and 7.5% increase respectively over 2019. In broiler feed production, Ukraine, Romania, U.K. and Belgium also reported higher numbers, resulting in strong growth for the sector in the European zone.

Table 9-1 Animal Feed Production in the World –MMT

Region	2017	2019	% Change
Africa	39.1	43.7	11%
Asia-Pacific	381.1	263.2	-31%
Europe	267.1	279.2	4%
Latin America	160.7	167.9	4.5%
Middle East	27	26	-3.7%
North America	194.6	236	21.3%
Total	1069.7	1,016	-5%

Source: Alltech Global Feed Survey -2020

Figure 9-1. Animal Feed Production in the World -2017 vs. 2019



Source: Alltech Global Feed Survey -2020

Leadership in Animal Feed Production

The top 7 countries can be viewed as a leader of the trends in agriculture. In 2019, comparing the production of top countries as a percentage of aggregate feed production of the rest of the world demonstrates how significant they are to the overall business.

Table 9-2. Leadership Animal Feed Production in the World

Country	2017		2019	
	Mills (No.)	Production (MMT)	Mills (No.)	Production (MMT)
China	6,000	186.9	6,000	167.9
USA	6,241	173	6,522	214.4
Brazil	1,572	69.9	1,590	70.4
Russia	569	37.6	648	40.5
Mexico	501	34.4	504	36.2
India	1,201	34.2	1,585	39
Spain	845	33	870	34.8

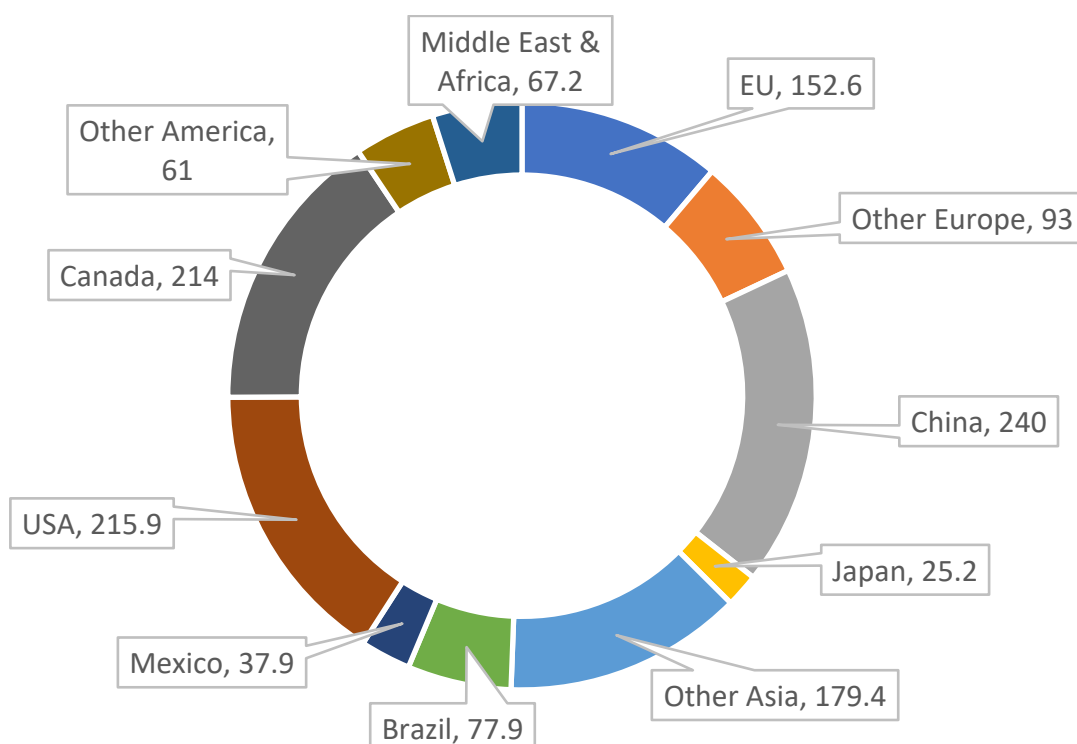
Source: Alltech Global Feed Survey -2020

In 2019, comparing the production of these top countries as a percentage of aggregate feed production from the rest of the world shows of the total, 63% Pigs, 48% Dairy, 54% Beef, 48% Layer, 60% Broiler and 54% Aquatics are fed from the countries above.

Compound Feeds

The global feed market consists of a large number of feed mills creating feeds for chickens, cows, pigs, and other animals. Feed mills combine ingredients, such as poultry meal, meat and bone meal, soybean meal, corn, rice, etc. in a proper ratio to get the desired nutrition content. The mixed product is then extruded before it is baked in an oven and an oil spray is often applied. Below is what happened in global compound feed production. The figure demonstrates four countries, including China, the USA, European Nations, Brazil with about 19%, 17%, 16% and 7% respectively, produce over 60% of compound feed globally.

Figure 9-2. Global Compound Feed Production



Source: IFIF Annual Report (2019-2020)

Animal Feed Market Trend

Over the last ten years, agricultural markets experienced a strong increase in demand across a wide range of commodities. Much of growth was attributable to non-food uses of agricultural commodities, mostly feedstock for animal feed. The global demand for feed reached 1.7 billion tons in 2019-2020, and is expected to increase further to 1.9 billion tons by 2027, at an annual growth rate of around 1.7%. Demand for feed is thus expected to grow faster than the demand for several commodities and markedly faster than food demand for cereals, for which 1.1% p.a. growth is expected. This growth results in 260 million tons of additional feed demand by 2027; slightly less than the development of the previous decade as demand grew by more than 300 million tons.

The main set of agricultural commodities used for feed include corn, protein meal, other coarse grains (especially barley and sorghum), wheat, and by-products of cereal processing such as cereal bran. corn and protein meal will remain the most important commodities used as feed, accounting for 60% of all feed by 2027 (up from 58% in the base period). Feed demand for corn is expected to grow by 21% over the outlook period, and demand for protein meal is expected to expand by 23%, considerably faster than the other commodities used as feed.

Figure 9-3. Demand for Feed (a) By feed component - million tons

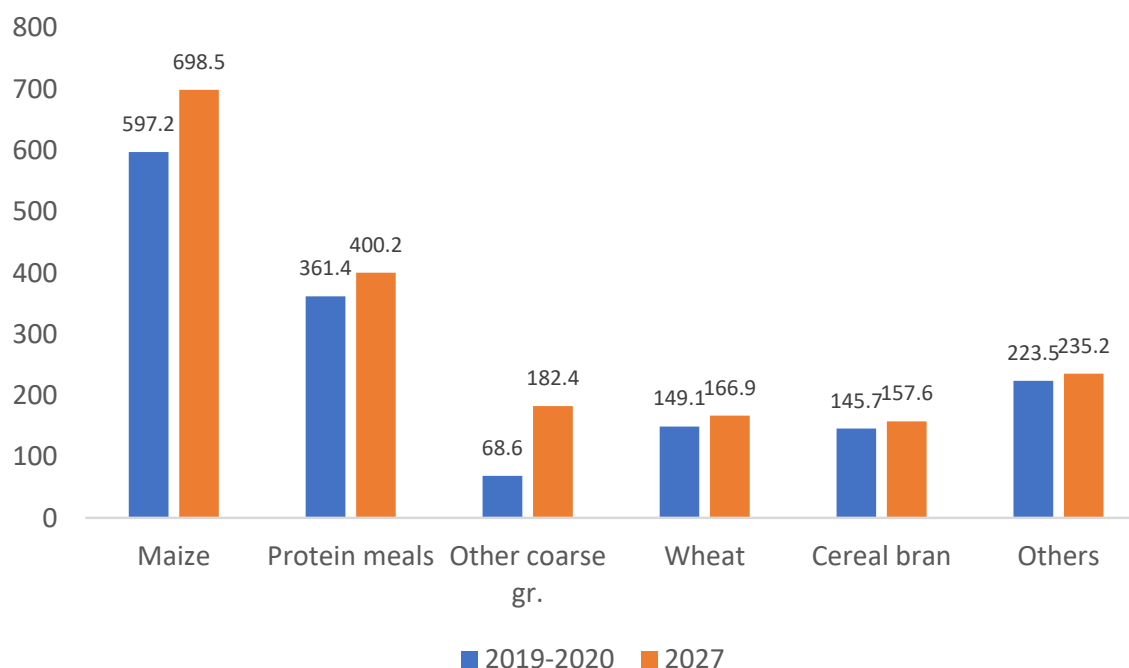
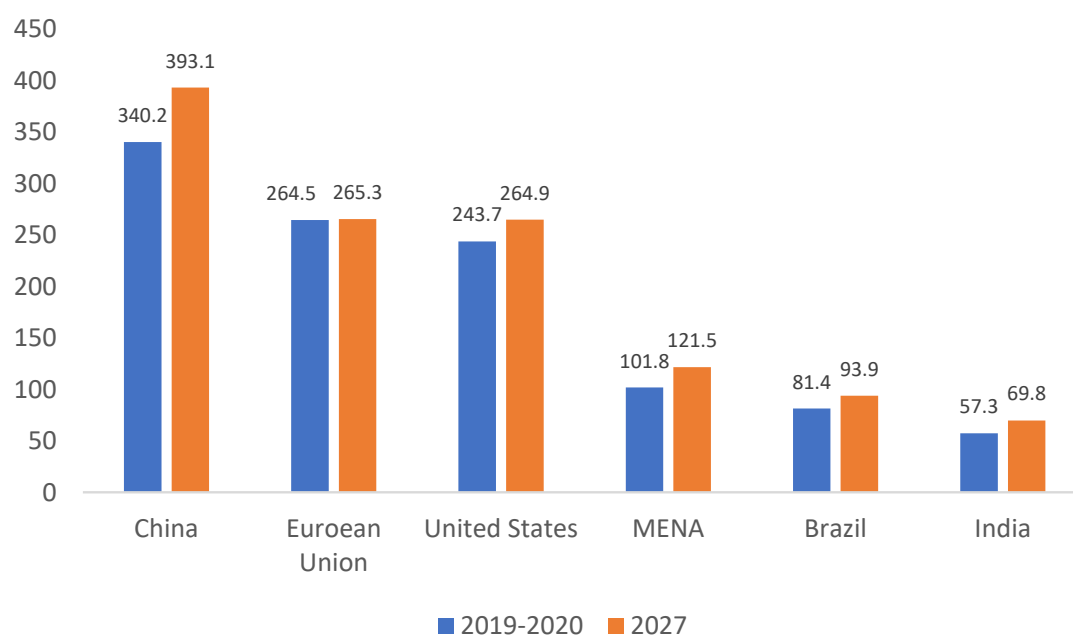


Figure 9-4. Demand for Feed (b) By region - million tons



Note: MENA stands for the Middle East and North Africa

Source: OECD/FAO-2019, "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (Database)

Figure 9-5. World Protein Production 2018 / 2019 (Mn metric tons)











PROTEIN TYPE	2018	2019*	VAR.
 BOVINE	71.3	72.3	1.3%
 POULTRY	124.6	130.5	4.7%
 PIGS	120.7	110.5	-8.5%
 OVINE	15.3	15.4	0.8%
 MILK	840.5	852.0	1.4%

Figure 9-6. World Protein Production Outlook until 2050 (Mn metric tons)

PROTEIN TYPE	2010	2050	VAR.
 BOVINE	66.7	107.5	62%
 POULTRY	98.9	201.9	104%
 PIGS	109.3	150.3	38%
 AQUA	59.9	113.7	90%
 MILK	722.9	1119.7	55%
TOTAL	1057.7	1693.1	60%

Source: Fao



Overall growth patterns in demand for feed will vary among geographical regions. Around 30% of the additional demand for feed will originate in China, where feed demand is expected to grow 25% over the outlook period. Strong growth in feed demand is also expected in the Middle East and North Africa (+29%, with the region expected to account for around 10% of additional global demand), as well as Brazil (+25%), and India (+31%). Growth rates in the European Union and the United States are considerably lower at 0.4% and 11% over the outlook period respectively.

Animal Feed Technology Outlook

Microbial Proteins (MP)

Industrial production of MP reveals that by 2050, depending on socioeconomic development and MP production pathways, MP can replace between 10–19% of conventional crop-based animal feed protein demand. As a result, global cropland area, global nitrogen losses from croplands and agricultural greenhouse gas emissions could be decreased by 6% (0–13%), 8% (–3–8%), and 7% (–6–9%).

Figure 9-7. Proposed Protein Supply Routes for Livestock Production based on Microbial Protein –MP

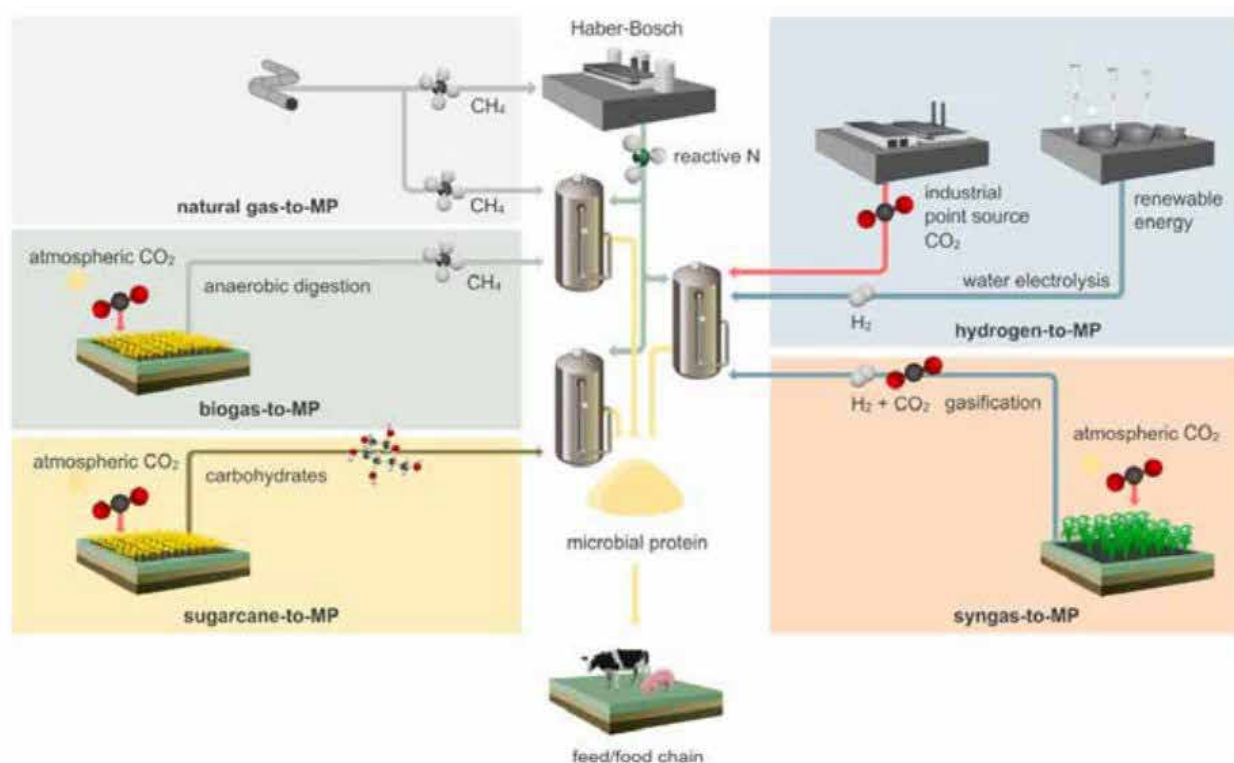
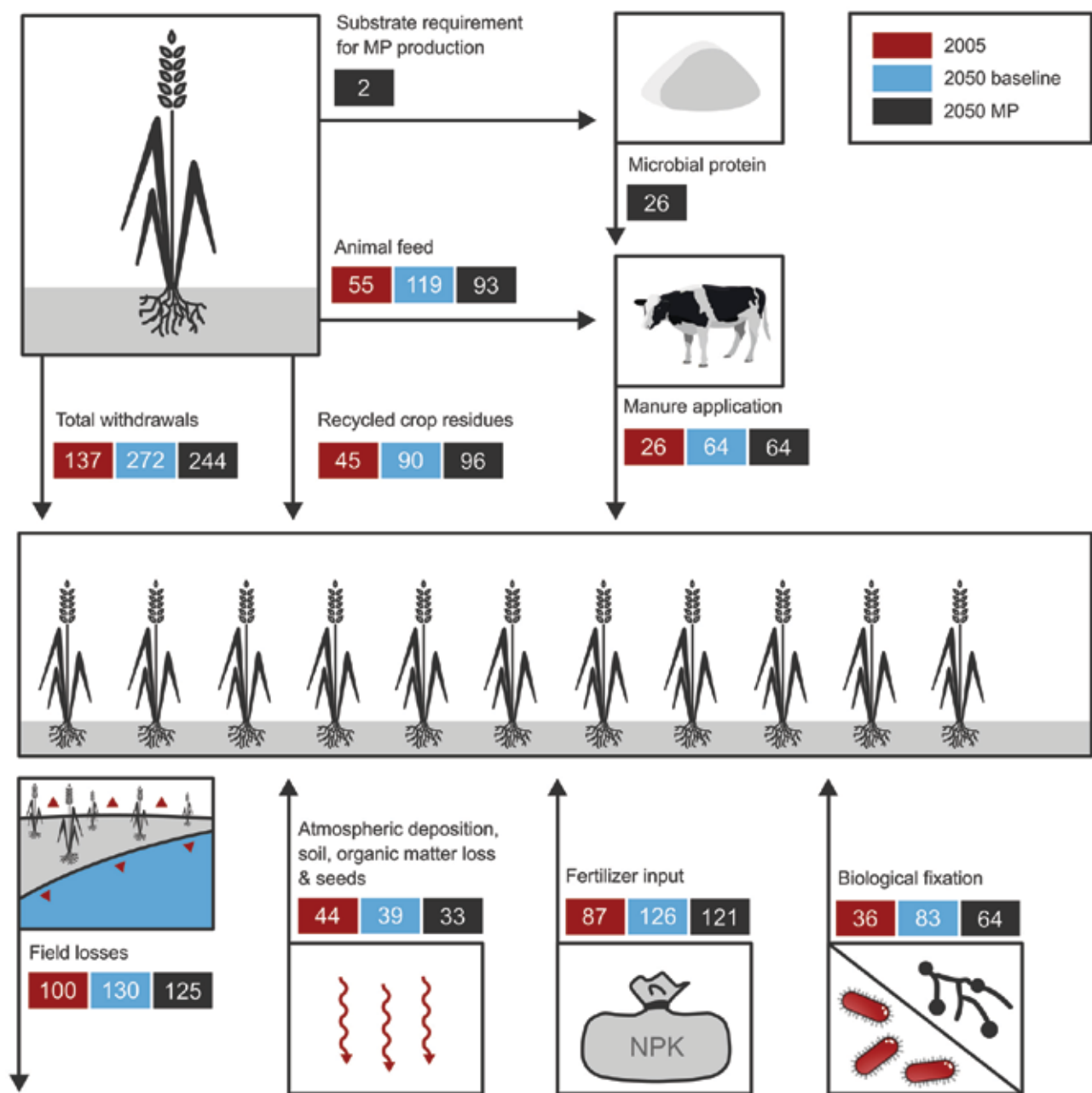


Figure 9-8. Global Agricultural Reactive Nitrogen Flow Flows by the year 2020



Feed Market Potential

Challenges & Opportunities in Animal Feed & Nutrition

◆ Fermentation

Industrial fermentation is the intentional use of fermentation by microorganisms, such as bacteria and fungi to make products useful for humans or animals. Fermented products or those derived from fermentation have several applications in animal feeding. Amino acids and enzymes are well known as fermentation products; both are crucial to optimize livestock performance.

◆ Nutrigenomics

Nutrigenomic technologies, such as genomics (DNA level), transcriptomic (gene activity at mRNA level), proteomics (protein level), metabolomics (metabolite level) and epigenetics (phenotype and gene expression level caused by mechanisms other than changes in the underlying DNA sequence) enable to refine such measurements, particularly in combination with bioinformatics and systems biology.

The final result shows a precise determination of the animal nutrient requirement under the specific conditions, e.g. production phase, health status, farm management, environment, and social interaction.

◆ Nutrigenetics

Another nutrigenomic technology visualizes how genetic differences between individuals can affect the response to nutrients/compounds in the feeds (Smits et al., 2007). Using above mentioned techniques, no need to get extreme nutritional treatments, induced efficiencies, or long-term production responses to understand the basic effects of diets.

◆ Algae & Microalgae

Algae farmed in aquaculture sites can become a substitute for feedstock and fishmeal. The cost of farming algae in most locations is between 400 USD and 600 USD per metric ton, 60% to 70% savings compared to fishmeal, which costs 1,700 USD per ton. Plus, algae is a more reliable source of feedstock, not dependent on catching fish providing producers with greater control over costs and the ability to forecast future investment or financial results considering the risk reduction in aquaculture farming operations.

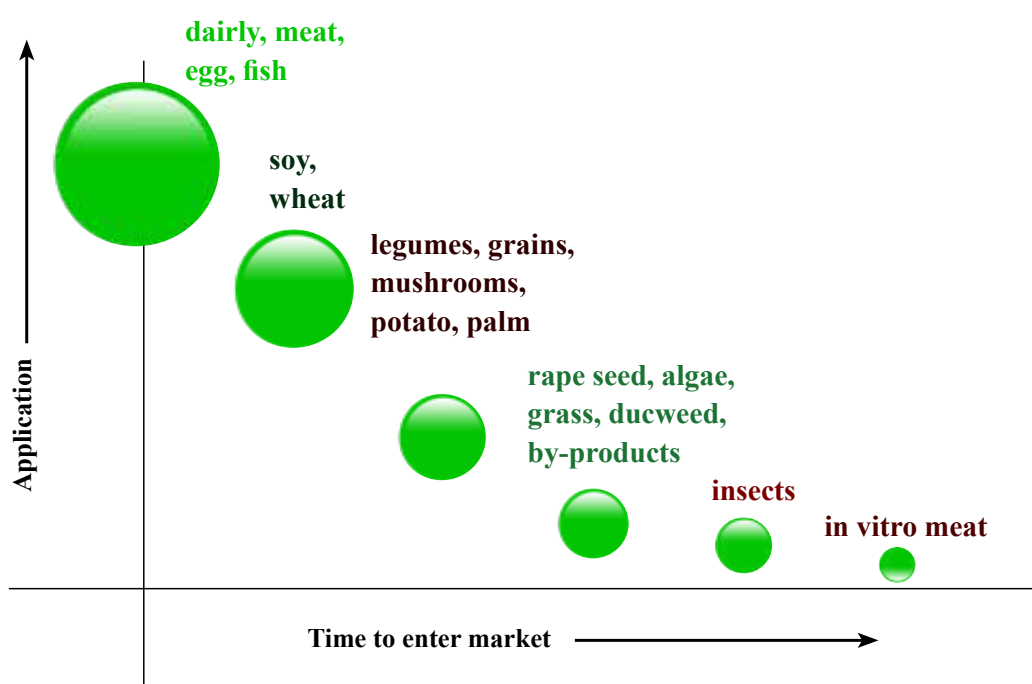
Micro-algae are single-celled organisms growing in the different range of environmental conditions. Micro-algae provide an important direct or indirect feed source for early developmental stages of many farmed finfish, shellfish and invertebrate species as both a supplement to enhance the nutritional value of formulated feeds, and a potential feed ingredient– the protein and energy source.

Already 6.4 billion Euros or 24 million tons of algae (mainly seaweed) are farmed globally and protein-rich micro-algae is seen as a forerunner resource to close the so-called “protein gap”. Approximately 30% of global algal production is sold for animal feed with potential for further increases as dried, defatted algae could compete with soybean in pig and chicken feed, potentially replacing up to one-third of soybean meal in diets.

◆ Insect: Protein Feed for the Future

Insects are rich in protein and are a natural component of many fish and free-range poultry diet. Insect meal has a lot of unknown facts, global edible insects market size exceed 522 million USD in sales by 2023, with estimated gains at 42% CAGR (compound annual growth rate). Rich in digestible protein, key amino acids, essential fats, and micronutrients are highly suitable to include in animal feed. Among the most promising species, for industrial feed usage, the black soldier flies common housefly larvae, silkworms and yellow mealworms could be used. Experts commercially solve several environmental problems by extracting protein from waste material, facilitating significant reductions in manure mass, moisture content, and offensive odours. At the same time, the professionals provide high-value feedstuffs for cattle, pigs, poultry and fish (Newton et al., 2005).

Figure 9-9. Insects as Animal Feed



◆ Marker Technology

Marker technology mainly focuses on animal breeding besides production and productivity, such as product quality, increasing animal welfare, disease resistance, disease receptivity, and reducing environmental impact.

Advances and Future Directions in Poultry Nutrition

Examples of some biotechnological applications widely used in animal nutrition

Applicataion	Aim(s) of developing the technology
Designer Ingredients	Nutritional enhancement (e.g. high-oil maize, high-methionine lupines) or reduction in the level of anti-nutritive components in common feed ingredients (e.g. low-phytate maize).
Feed Additives	- To suppress the growth of harmful bacteria and promote the establishment of a desirable gut flora balance (e.g. antibiotics).
a) Antimicrobials	- To increase dietary supply of specific amino acid and improve protein balance in diet formulations.
b) Crystalline Amino Acids	- To improve availability of nutrients (energy, amino acids, phosphorus etc.) in feed ingredients by reducing the negative effects of anti-nutritive components (e.g. microbial phytases acting on phytate, xylanases acting on arabinoxylans in wheat).
c) Feed Enzymes	
Gut Ecosystem Enhancers	- To promote the establishment of a desirable gut ecosystem through the proliferation of beneficial species (e.g. direct-fed microbial).
a) Probiotics	- To competitively exclude harmful organisms and promote the establishment of a desirable gut ecosystem (e.g. mannan oligosaccharides).
b) Prebiotics	

Examples of some biotechnological applications with future potential in animal nutrition

Application	Aim(s) of developing the technology
Modification of Gut Microbes	- To genetically modify microorganisms naturally present in the gut to enhance their capacity for defined functions or add new functions (e.g. rumen microbes to improve cellulose digestion)
Introduction of New Gut Microbes	- To introduce new species or strains of microorganisms into the gut.
Bioactive Peptides	- Improved growth and efficiency (e.g. growth hormone-releasing peptides), improved gut function, immunomodulation, antibacterial properties.
Antimicrobial Replacers	- Antimicrobial enzymes (e.g. lysozyme), delivery of specific antibodies via spray-dried plasma and egg products.
Transgenesis	- To modify nutrient metabolism and improve growth efficiency by transfer of genes.

World's Top 10 Feed Additive Companies

◆ Cargill, Incorporated

Cargill Animal Nutrition & Protein delivers customized animal nutrition products and services to commercial producers in aqua, beef, dairy, pork, poultry, and pet food. The segment also provides a full range of meat and poultry products to food manufacturers, foodservice companies and retailers, as well as industrial customers. The major segments of the company are; Cargill Aqua Nutrition, Cargill Feed & Nutrition, Cargill Poultry, Cargill Premix & Nutrition and Cargill Protein. Cargill overall revenue in 2018 grew 5% to 114.7 billion USD from 109.6 billion USD (2017).

◆ Archer-Daniels-Midland Company (ADM)

The ADM's actions are organized, managed, and classified into four reportable business segments: Origination, Oilseeds, Carbohydrate Solutions, and Nutrition. Each of the segments is organized based upon the nature of the products and services offered. The Nutrition segment includes activities related to the processing and distribution of formula feeds, animal health, nutrition products, and manufacturing contract and private label pet treats and foods. ADM's overall revenue in 2019 grew to 64.7 billion USD from 24.8 billion USD (2018).

◆ Biovet S.A.

Biovet S.A. Laboratories were founded in 1984 by a group of veterinarians and chemists with extensive experience in clinical practice and manufacturing additives and premixes for animal nutrition. Biovet S.A. has worked regarding productivity and animal welfare offering services such as product development, additive manufacturing, feed formulation service, training and consulting zoo technical services, analytical services, microbiological analysis and mycotoxin analysis service for over 30 years.

◆ Blue star Adisseo Co., Ltd

Adisseo is a global leader in nutrition and health feed solutions, including research and development, production and sales with over 75 years' experience. In 2006, Adisseo joined BlueStar Group, in China's innovative chemical materials and speciality chemical industries, and established CINAbio in Toulouse of France in the same year. Adisseo supplies three types of products: Performance products (including methionine, vitamins, ammonium sulphate and sodium sulphate), Specialty products (including enzymes, rumen-protected methionine, organic selenium, and probiotics additives) and other products (including carbon disulphide, sulphuric acid, and powder processing services). Adisseo's turnover in 2018 was 1.46 billion euros.

◆ Evonik Industries AG

Evonik is one of the world's leading speciality chemicals companies. Company's strengths include the balanced spectrum of business activities, end-markets, and regions. The company reports the revenue majorly in four business segments; Nutrition & Care, Resource Efficiency, Performance Materials, and Services. In the Nutrition & Care segment, sales advanced 3% to 4,646 million Euros (31% of total sales), driven by high global demand. Evonik's overall revenue in 2018 grew to 15.024 billion Euros from 14.38 billion Euros (2017).

◆ BASF SE

BASF is a global supplier of innovative feed additives for livestock, aquaculture, and companion animals. BASF produces Conjugated Linoleic Acid (CLA), CLA reduces the milk fat content during the supplementary feeding phase in a dose-dependent manner and leads to lower blood glucose utilization per kilogram of milk. BASF also manufactures enzymes to feed, indigestible feed components can be digested in the gastrointestinal tract. In animal nutrition, enzymes are used predominantly for monogastric animals, such as pigs and poultry. BASF revenue report under Nutrition & Health contains products such as food and feed industries, flavour and fragrance industry, pharmaceutical industry and ethanol industry. The overall revenue of the BASF was 59.3 billion Euros in 2019.

◆ Advanced Enzyme Technologies Limited (AETL)

Advanced Enzyme Technologies Limited (AETL) is a research-driven company with global leadership in manufacturing enzymes and probiotics. AETL is the largest Indian enzyme company, engaged in research and development, manufacturing and marketing over 400 proprietary products developed from over 68 indigenous enzymes and probiotics. AETL offers solutions to a wide variety of industries like human health care and nutrition, animal nutrition, baking etc. AETL provides enzyme-based feed additives for the animal nutrition industry, mainly catering to poultry and swine. By adding enzymes to feed, the digestibility of the components could be enhanced. Animal Nutrition products enable animals to maximize the absorbed nutrients taken from feed, thus helping in reducing feed costs, minimizing animal waste production and consequently helping with environmental pollution reduction. The company draws 13% revenue from the above-mentioned segment. AETL overall revenue in 2018 grew to 4.24 billion INR from 3.97 billion INR (2017).

◆ AB Vista

AB Vista is one of the largest suppliers of yeast and natural betaine to the global animal nutrition industry. The company invests heavily in research and development and has a growing portfolio of products and services spanning the poultry, swine, ruminant and aquaculture sectors. AB Agri is the agricultural section of Associated British Foods (ABF plc) - one of Europe's largest food and retail companies, with a market capitalisation of 25 billion Euros.

◆ Kemin Industries, Inc.

Kemin is a family-owned company started in 1961. The company has 2,400 employees, with manufacturing facilities in eight countries doing business in 90 countries, with international headquarters in Des Moines with an annual revenue of 500 million USD. Kemin's mission is to improve the human and animal life throughout the world manufacturing over 500 speciality ingredients which deliver important nutrition and health benefits of products consumed by people and animals.

◆ Lallemand Inc.

Lallemand Inc. is a privately held Canadian company founded at the end of the 19th century that specializes in the development, production, and marketing of yeasts and bacteria. The company is organized into 11 technically driven business units focusing on various applications of yeast and bacteria in baking, fermented beverages, human and animal nutrition, fuel ethanol and for agricultural and pharmaceutical usage. Other activities of Lallemand include 65% participation in Macco Organiques Inc., which produces speciality organic acids and mineral salts. Lallemand hired over 4,000 employees of about 45 countries on 5 continents.

Top 10 Animal Feed Companies in World

- ◆ CP Group (Charoen Pokphand Group Co., Ltd.)
- ◆ New Hope Liuhe Co., Ltd.
- ◆ Cargill, Incorporation
- ◆ Land O'Lakes, Inc.
- ◆ Wen's Food Group
- ◆ Muyuan Foodstuff Co. Ltd.
- ◆ BRF S.A.
- ◆ Tyson Foods Inc.
- ◆ For Farmers N.V.
- ◆ Nutreco N.V





10 ANIMAL FEED INDUSTRY IN IRAN



Overview

The Iran animal feed industry dates back 70 years. The domestic market requires about 21 mn. tons of animal feed annually, and, 11 million tons was provided by domestic animal feed mills and the remainder was produced by traditional livestock and poultry farms in the year ended March 2021. The total production of animal feed was 11 million tons, about 6,645,000 tons of which is allocated to livestock, 4,060,000 tons to poultry, and 295,000 tons as fish.

In other words, except for 2% imported animal compound feed, the other 98% is provided through Iranian animal feed mills and farms.

According to a report presented by the Iran Feed Industry Association, from the total of 1023 feed mills, 620 are active, 36% of the managers have 5-10 years of experience, 21% have below 5 years of experience, 41% of the managers have bachelor degrees, 17% have master's degrees, and 5% have high school diplomas.

Among active animal feed mills, 176 were established during the years ended March 2011- 2018 and 14 started operating during the years ended March 1962-1980.

About 104 mills produce flour (Mesh), 12 units are extruders, 176 produce pellet, 202 manufacture flour (Mesh) and pellet. Regarding export, 51 mills have experienced exporting of a variety of animal feed (i.e. 88% are not export-oriented). Also, 22 animal feed mills are active under license of foreign companies or in the process of receiving contracts to authenticate their products (i.e. 96% of animal feed mills must put in effort to reach international markets). About 14 animal feed mills manufacture patented products (i.e. 97% of mills are not under supervision of research and development centers). The animal feed mills have 8,421 male and 1010 female employees. The number of vets, nutritionists, technical experts, are 399, 492 and 1,011, respectively.

Among active animal feed mills, 173 own laboratories approved by Iran Veterinary Organization and 52 have laboratories approved by ISIRI, 61 mills are qualified to take tests approved by the IRI Veterinary Organization and ISIRI, while 65% do not have microbiological laboratories.

As well, 3.51% are not able to take raw protein tests, 55% are not able to take ash tests, 61% are not able to conduct fiber tests, 63-64.5% are not able to conduct fat tests, and 29.93% cannot take heavy metal tests. As well, 264 persons work at animal feed mills laboratories. 43.07% of animal feed mills have quality control personnel at the laboratories.

Mazandaran Province has the most active animal feed mills and healthcare licenses (48), while Lorestan Province has the lowest number (2). However, the greatest number of animal feed mills are located in Razavi Khorasan, Mazandaran, Golestan, and Fars provinces.

Regarding the nominal capacity, Golestan (1.193 million tons), East Azerbaijan (985 thousand tons), and Fars provinces (968 thousand tons) hold the 1st, 2nd, and 3rd places, respectively producing 30% of the total of industrial animal feed.

In the year ended March 2017, despite 26.63% and 17.02% brooding in Mazandaran and Gilan provinces, 7.01% and 4.65% of poultry feed was produced domestically and all needs were met from other provinces.

Animal Feed Mills

In the year ended March 2022, about 1,023 feed mills were issued for animal feed mills with total capital of 570 million USD, 15,404 employment opportunities and 16,755.5 thousand tons of capacities. Fars province received the majority of permits for animal feed mills with establishment of 123 mills, 29.2 million USD capital, 1,328 employment opportunities and capacities of 1,516.9 thousand tons.

Table 10-1. Number of Feed mills by province, Yr. ended Mar. 2022

Province	Number of Feed Mills
Alborz	27
East Azerbaijan	54
West Azerbaijan	36
Ardabil	35
Isfahan	53
Ilam	8
Bushehr	7
Tehran	37
Chaharmahal & Bakhtiari	22
South Khorasan	17
Razavi Khorasan	95
North Khorasan	14
Khuzestan	49
Zanjan	12
Semnan	17
Sistan & Baluchestan	19
Fars	53
Qazvin	41
Qom	27
Kurdistan	26
Kerman	18
Kermanshah	28
Kohgiluyeh & Boyer-Ahmad	4
Golestan	51
Gilan	27
Lorestan	26
Mazandaran	125
Markazi	37
Hormozgan	22
Hamedan	21
Yazd	15
TOTAL	1,023

Source: Agricultural Statistics Data

Animal Inputs

Essential animal input was divided into bran, concentrate, soybean meals, corn feed, barley, pulp sugar beet, field corn, wheat feed, poultry feed and oyster shell flour, the total of which was 2,226,025 tons and 2,236,014 tons purchased and distributed, respectively.

Barley has been the most purchased and distributed animal input with 446,371 and 440,613 tons, respectively.

Table 10-3. Animal Feed Input Supply-2021-tons

Input	Availability	Distribution	Sale	Inventory
Bran	4,805	383,510	387,111	1,204
Concentrate	2,815	279,938	280,780	1,973
Soybean Press Cake	945	96,896	95,134	2,707
Feed Corn	6,718	432,875	435,544	4,049
Barley	11,810	440,613	446,371	6,052
Sugar Beet Pulp	879	24,198	22,770	2,307
Forage Corn	464	190,813	186,474	4,803
Feed Wheat	204	69,817	64,873	5,148
Poultry Feed	2,453	97,777	95,018	5,212
Oyster Shell Flour	261	13,398	8,641	5,018
Miscellaneous	1,623	206,179	203,309	4,493
Total	32,977	2,236,014	2,226,025	42,966

Source: Agricultural Statistics Data

Consumption of Animal Feed Ingredients

According to the official statistics of Ministry of Agriculture-Jahad, the total amount of animal feed ingredient consumption was 72 mn tons, including hay (73.6%) such as Alfalfa, corn silage, straw, and Concentrate (26.4%) such as corn, soybean meals, barley, etc. in 2019.



Table 10-4. Total Feed Requirement -2020- 000 tons

Concentrate	Requirement	Hay	Requirement
Livestock Corn	6,695	Alfalfa	5,617
Wheat	754	Other Legumes	1,890
Livestock Barley	5,000	Maize	12,098
Different Meals	3,376	Straw	14,281
Wheat and Rice Bran	2,219	Other	20,929
Total	18,044	Total	54,815
% of Total Feed	26.4	% of Total Feed	73.6

Note: About 60-70% different types of animal feed are produced by farmers themselves in their farms.

Source: *Agricultural Statistics Data*

Consumption of Animal Feed Ingredients

According to the official statistics of Ministry of Agriculture-Jahad, the total amount of animal feed ingredient consumption was 271580000 tons, including hay such as Alfalfa, corn silage, straw, and Concentrate such as corn, soybean meals, barley, etc. in 2019.

Table 10-5. Export of Animal Feed Inputs-Yr. ended Mar. 2021

Subsidiary	Value (000 USD)	Weight (MT)	Change Percent	
			Value	Weight
Bran	15964	45263	-24%	-18%
Barley	324	400	10%	25%
Oil meal	0.06	0.06	-99%	-99%
Maize	2824	9295	40%	35%
Other Grain	44.5	64	-21%	-21%
Wheat	774	155	-	-
Chemical Products	53.5	110	104.05%	-78%
Oil Seeds	2609	1665	-57%	-51%

Source: *Ministry of Agriculture-Jahad*



Import of Animal Feed Inputs

In the year ended March 2019, animal feed inputs including bran, barley, oily meal, corn, wheat, pressed cake, and chemicals imported at a volume of 15,871,183 million tons and value of 4,824,183.9 thousands USD, an 11.70% and 15.46% decrease in value compared to the previous year. The import related to corn was 2,115,681.8 thousands USD and 8,983,078.7 million tons in value and weight, respectively.

Table 10-7. Comparative statistics of import of feed inputs in 2021&2020

Subsidiary	2021		2020		Change %	
	Volume (MT)	Value (Thousand \$)	Volume (MT)	Value (Thousand \$)	Volume	Value
Barley	3338288	1005629	1866716	465842	78	115
Oil Meal	2297650	1597923	2190869	1156819	5	38
Corn	9778866	3399246	9881950	252269	-1	34
Other Grain	4162	1704	2536	914	67	86
Wheat	1015227	2486510	3284650	919255	115	170
Chemical Products	23238	68122	31004	75018	-25	-9
Press Cake	2347318	1276146	1827738	795791	28	60
Total	24871366.8	9855440.9	19094904.17	5976385.24	30.25	64.91

Source: Ministry of Agriculture-Jahad

Export of Animal Feed

In the year ended March 2019, the export value of poultry and livestock additives and ready-made feed was 30,690,198 USD. The export value of poultry and livestock readymade feed (58% increase) and additives (73% decrease) reached 26,280,618 USD and 190,624 USD, respectively. Fish ready-made feed (418% increase) and additives (23% decrease) reached 3,189,644 USD and 1,029,312 USD. Note: export of animal feed has been banned in Iran between 2020 and april 2022.

Table 10-8. Export Value-USD

Export of Animal Feed	Yr. ended Mar.2017	Yr. ended Mar.2018	Yr. ended Mar.2019
Poultry and Livestock Additives	742,451	721,328	190,624
Poultry and Livestock ready-made Feed	9,036,591	16,588,386	26,280,618
Fish Additives	5,071,559	1,343,883	1,029,312
Fish ready-made Feed	450,072	615,146	3,189,644

Source: IRICA

Import of Animal Feed

In the year ended March 2019, the import value of poultry and livestock additives and livestock ready-made feed was 41,148,292 USD. The import value of poultry and livestock ready-made feed (41% decrease) and additives (19% decrease) reached 29,725,627 USD and 1,330,182 USD, respectively. Fish ready-made feed (77% decrease) and additives (34% decrease) reached 443,596 USD and 9,648,887 USD, respectively.

Table 10-9. import Value-USD

Import of Animal Feed	Yr. ended Mar.2017	Yr. ended Mar.2018	Yr. ended Mar.2019
Poultry and Livestock Additives	38,420,568	50,573,914	29,725,627
Poultry and Livestock ready-made Feed	2,007,148	1,658,084	1,330,182
Fish Additives	1,786,474	1,909,286	443,596
Fish ready-made Feed	6,224,059	14,765,340	9,648,887

Source: IRICA

Import Countries of Origin

The main import countries of origin for animal feed are Russia, Ukraine, Kazakhstan, Brazil, Argentina, China, the European Union (Germany, the Netherlands and Austria), Eastern Europe and Australia. Their main import products are as follows.

Table 10-10 Imported Feed Ingredients from Origin Countries

	Raw Materials
Russia	Barely, Wheat, Soybean Meal
Ukraine	Barely, Corn
Kazakhstan	Barely, Wheat, Oil Seed Cake
Brazil	Soybean Meal, Corn
Argentina	Soybean Meal, Corn
China	Premix
EU	Barely, Premix, Minerals, Vitamins, Substitutes for Milk, Supplements
Eastern Europe	Corn, Oil Seed Cake
Australia	Wheat

Source: IFIA

IR Code Animal Feed Mills

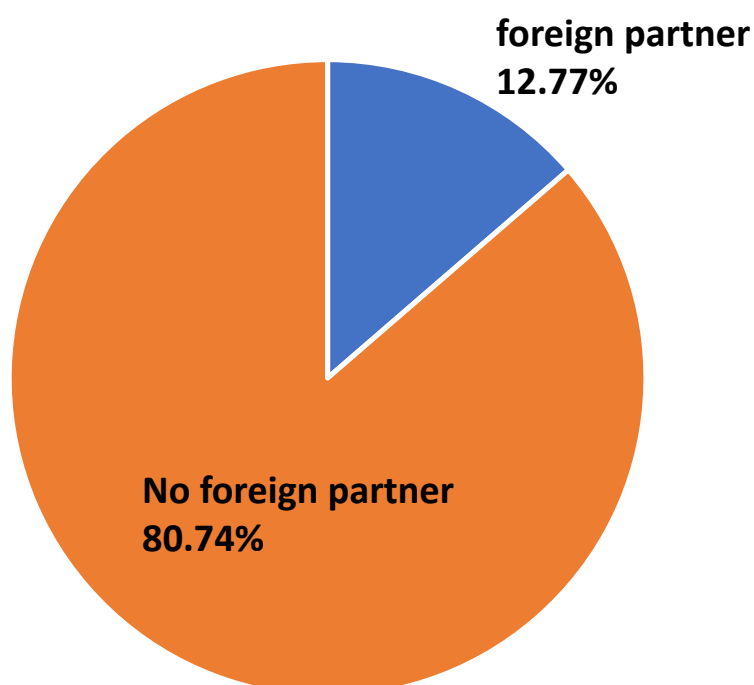
Only 39 of all active animal feed mills have IR code and 63 feed mills are receiving the sanitary code. The share of IR-equipped feed mills is 8.44%, the share of the feed mills that are receiving the IR code is 13.64%, and other feed mills do not have sanitary code.

An IR code is issued to animal feed mills that have implemented GMP, HACCP or ISO 22,000 in units, after being officially audited by the Directorate of Supervision Public Health and the appointed management of the veterinary Occupational Health. The sanitary license accelerates the export of animal feed.

Foreign Partners of Animal Feed Mills

12.77% of the active animal feed mills have foreign partners and 51 feed mills (11.4 % share) had export.

Figure 10-1. Animal Feed Mills with Foreign Partners -%



Source: IFIA



Strengths & Opportunities Analysis of Animal Feed Industry

◆ Strengths

- ◆ Ability to utilize a relatively advanced marketing system
- ◆ High potential of creating value added in pre and post sector
- ◆ Appropriate use of state facilities
- ◆ Availability of feeding Input (Import)
- ◆ Short-term return of capital
- ◆ Availability of expert work force
- ◆ Expansion to all parts of the country
- ◆ Access to the consumption market (400 million) in the region

◆ Opportunities

- ◆ Growth of domestic market
- ◆ Benefiting unused production capacity
- ◆ Presence in growing regional markets

Iran's Animal Feed Market Outlook

Increasing global demand for meat is one of the key factors in growing demand for animal feed, while the international community's concerns regarding the prevalence of animal-related diseases has increased the importance of enzymes in livestock and poultry feed and the increase of chemical reactions in animal feed has resulted in better quality.

Therefore, the increase in world population has led to an increase in global meat consumption, and per capita consumption of meat is estimated to be 39.78 Kilograms. On the other hand, livestock feed is one of the most important factors in meat production, and rising demand for meat increases the demand for animal feed.

Many developing countries in Asia, especially India and China, are the major consumers of global meat, in addition to their large population, the per capita revenue growth of the middle class in the mentioned countries has also increased the demand for livestock and poultry products. Also, Asian countries, mainly China and India, have the largest animal feed and poultry industries and markets in the region.

According to global statistics, the world-wide human consumption of cereals will increase to the equivalent to 45% and its consumption in other cases to about 60% by 2030 compared to 1996. Approximately 70% of the costs of milk, meat and egg production are related to animal feed. The statistics show the importance and economic role of feed and the need to manufacture the product at the highest standards. Analysts predict that the market will grow at an annual rate of 4.92% by 2019. According to the Globe Newswire website, the size of the market for animal feed and poultry feed will reach 22 billion USD by 2022. According to predictions, the animal feed market will continue to increase at a rate of 4% by 2022. Meanwhile, fisheries is also one of the most important sectors of global trade in animal products. According to analysts, the growth rate of the animal feed market is expected to increase by 4.2% annually, and will include a high share of global revenues in livestock and poultry feed by 2022.

On the other hand, a significant share of the revenues is spent on amino acids preparation that plays an important role in livestock and poultry feed, and accounts for more than 33% of the revenue share (About 5.5 billion USD is spent on amino acids). On the other hand, Antibiotics are other important substances used in livestock and poultry feed production, which has become even more important in recent years. According to the EU's strict regulations, it accounts for 25.7% of the livestock and poultry revenues.

The improvement of technology and expertise in Iran, has led to meeting the protein products demands in the local market (80 million people), and the industry can also export to neighboring countries (a market with a population of 400 million).

According to predictions, about 200 animal feed mills will be added to the animal feed production chain with a capacity of about 7 million tons. Modern technology and high productivity by the end of 2030 will lead to growth of 12% to 20% in animal feed mills. Production capacity will increase to 26 million tons and 1.5% share of the global markets by 2031. The provinces with animal feed production capabilities are Isfahan, Khorasan Razavi, Mazandaran, South Khorasan, Fars, Golestan, West Azerbaijan, Kermanshah and Kurdistan.

Nowadays, 80% of the animal feed raw materials are imported and self-sufficiency cannot be achieved in the near future, but import could be decreased by increasing productivity as well as reducing the production conversion coefficient of the milk, meat and eggs. Animal feed will be exported to 20 countries (volume of 900,000 tons and value of 400 million USD) by 2020.





11 IRAN FEED INDUSTRY ASSOCIATION PERFORMANCE





IRAN FEED INDUSTRY ASSOCIATION

Summary of Iran Feed Industry Association Performance

- ◆ The report of the Iran animal feed association was presented on Strategic, Structural and Non-Programmatic Actions to the annual general meeting in February 2016. Some guild activities are informed with the aim to develop and strengthen the share of animal feed industry, employment and the national economy.
- ◆ The amendment Approval to the Article 19 of the Veterinary Health Code approved by the government in the Article 76 Committee of the Fifth Development Plan
- ◆ Releasing export of animal feed
- ◆ Export preferential tariff of livestock feed with 3 export target countries
- ◆ Prohibiting the production of animal feed in breeding units during the notification of Iran Veterinary Organization in the year ended March 2016
- ◆ Approval of 1,000 billion IRR budget by the Iranian National Fund of Animal Feed Industry Development
- ◆ Decreasing the tax exemption from 12% to 6% in animal feed mills
- ◆ Investment risk reduction in animal feed industry
- ◆ The amendment Approval of the executive code of sentence (g)- Article 3 and Articles 7, 8 and 9 of the Veterinary Organization Law adopted in the year ended March 2012 in the Article 76 Committee of the Fifth Development Plan
- ◆ Setting up the arbitration center of animal feed industry
- ◆ Setting up ranking and competitiveness center of the animal feed industry
- ◆ Grains and animal feed swap in ECO members
- ◆ Separation of animal feed exhibition from International Livestock and Poultry Exhibition
- ◆ Setting up Statistic and economic information center of animal feed industry
- ◆ Following up 15% increase in working capital of animal feed mills◆ Following up to allocate 250 billion IRR budget to modernize and improve 30 animal feed mills

The Current Activity of Iran Feed Industry Association

- ◆ The infographic is illustrated the profile of Iran animal feed association activities to members with the aim of enhancing and promoting knowledge, leadership skills, improving the business environment and promoting the community's knowledge and belief of animal feed industry role in comprehensive development.
- ◆ 52, Attendances at business seminars
- ◆ 256, Guild notifications to members
- ◆ 5, Forum seminars across the province
- ◆ 6, Forum seminars of Iran Animal Feed association with the government and parliament presence
- ◆ Celebration of Dr. Ali Rahimian
- ◆ 27, Attendance at radio program

- ◆ 19, Attendance at national and international television program
- ◆ 19, Guild poll of members
- ◆ 4, MOU and cooperation documents
- ◆ 11, Publication of economic report at the press
- ◆ 18, Technical committee seminars

Services to Members in the year ended March 2019

- ◆ 14, Educational centers
- ◆ 24, Legal centers
- ◆ 33, Ranking centers
- ◆ 18, Social securities
- ◆ 67, Tax advices

Developing the International Interactions

- ◆ Major adopted boards of directors
- ◆ 31 boards of directors from Russia, Ukraine, Kazakhstan, Turkey, Emirate, Oman, Armenia, Turkmenistan, Austria, Germany, Belgium, France, Italy, Netherlands, South Korea, Thailand, Argentina, Brazil
- ◆ Major mission of the board of directors
- ◆ 15 boards of directors to Russia, Pakistan, Austria, France, Italy, Ukraine, Turkey, Germany, Canada, India, China, Thailand

Major Courses Held by the Association

- ◆ Holding a training course on the principles of chemical tests for animal feed, August 2016.
- ◆ Holding training course on acquaintance with national and international animal feed standards, August 2016.
- ◆ Holding two-days+ GMP for senior managers of Iranian animal feed mills by the presence of international professors, April 2018.
- ◆ Holding one-day elementary GMP+ course for the animal feed mills of North, South and Razavi Khorasan, July 2018.
- ◆ Holding arbitration training workshop for economic activists of livestock, poultry and aquatic industry, August 2018

Projects led Iran Feed Industry Association

- ◆ Mycotoxins in animal feed products of Iran, since December 2015 to December 2016.
- ◆ Setting up competitiveness development center of animal feed mill in the year ended March 2017.

Major Seminars






- ◆ Third forum seminar of Iran animal feed mills, February 2015-Tehran.
- ◆ Forth provincial seminar of Iran animal feed mills in Kermanshah, June 2016.
- ◆ Fifth forum seminar of livestock feed mills, August 2016.
- ◆ Expert seminar of mycotoxins in animal feed industry, November 2016.
- ◆ Celebration of Dr. Ali Rahimian- founder of animal feed industry, February 2016.
- ◆ Forum seminars of top animal feed Mills-June 2017.
- ◆ Seminar of the Agriculture Committee of the Islamic Consultative Assembly with board members of animal feed industry, July 2017.
- ◆ First regional seminar (5 regions) of total forum seminars related to animal feed industry, August 2017- Razavi Khorasan.
- ◆ Challenges and solutions of animal feed export improvement, February 2017.
- ◆ Holding a video conference with all livestock managers of the provinces and senior managers of the Ministry of Agriculture (Jihad) about the problem of non-allocation input to livestock feed factories.
- ◆ Holding the 31st symposium of livestock, poultry and aquatic feed industries with the presence of the deputies of the Ministry of Agriculture (Jihad), Ministry of Industry, Mine and Trade and Iran Veterinary Organization.
- ◆ Forming legal commissions of Removing Barriers to Production, Trade and Technology in order to professionally pursue the rights and trade union claims of feed mills.
- ◆ Holding training courses with the aim of increasing the knowledge of the country's livestock feed factories.
- ◆ Proposing and approving the plan of the association in relation to the double allocation of inputs to animal feed factories in exchange for the ability to sanitize problematic inputs by the Iran Veterinary Organization.

Major MOUs between Iran Feed Industry Association & the International Organizations, Companies

- ◆ MOU between Iran Animal Feed Association (IRFA) and NIOBio company of Russia, March 2017.
- ◆ MOU between IRFA and GMP+ international validation company, October 2017.
- ◆ MOU between IRFA and state trade company of Kazakhstan, October 2017.
- ◆ MOU between IRFA and Russia grains council, April 2018.
- ◆ MOU between IRFA and animal feed producer's union of Russia, April 2018.
- ◆ MOU between IRFA and national animal feed of Russia, April 2018.
- ◆ MOU between IRFA and European feed producer's federation-FEFAC, June 2018.



Top 5 Aquatic Feed Mills based on Nominal Capacity

	Aquatic Feed Mill	Nominal Capacity	
1	Fara Daneh	230000 Tons	
2	Gilak Daneh	45000Tons	
3	Roshd Daneh	55000Tons	
4	Kimiyagaran Taghziyeh	34000Tons	
5	Dordaneh Falard	21000Tons	

Iran Animal Feed Mills with IR Code



21 Beyza
CEO: Mr. Abudi
Province: Fars



Lordegan199 Cooperative
Province: Chaharmahal & Bakhtiari



Daneh Pak Khazar/Savana
CEO: Mr. Tahmasebi
Province: Mazandaran



Setareh Kian Birjand
CEO: Mr. Kheirieh
Province: South Khorasan



Koudijs Pars
CEO: Mr. Cheraghchi Astaneh Bashi
Province: Khuzestan



Arina Roshd Shomal
CEO: Ms. Khorsand
Province: Mazandaran



Mazandaran Livestock & Aquatics Feed
CEO: Mr. Kaboli
Province: Mazandaran



Dan Va Oloofeh Shargh
CEO: Mr. Mohamadi
Province: South Khorasan



Amol Behdaneh Tabarestan/Miran
CEO: Mr. Miran
Province: Mazandaran



Avizhe Darou
CEO: Mr. Habib
Province: Markazi



Alborz Dam Daroo/Alborz Dan
Province: Mazandaran



Dordaneh Razavi
CEO: Mr. Bagheri
Province: Razavi Khorasan



Khorak Pardaz Hezar Dasht
CEO: Mr. Makuei
Province: Alborz



DaneDaran Toos
CEO: Mr. Hasan Zadeh
Province: Razavi Khorasan



Behsan Taghzieh Aryan (BETA)
Province: Alborz



Gilak Daneh
Province: Gilan



Gohar Daneh Shargh
CEO: Mr. Salahshoor
Province: Razavi Khorasan



Gorgan Va Dasht
CEO: Mr. Eftekhareadin
Province: Golestan



Gharb Daneh Abidar Group
CEO: Mr. Mandoomi
Province: Kurdistan



Kaivan Morgh Par Tala Mahabad
CEO: Mr. Savari
Province: West Azarbaijan



Kimiyagaran Taghziyeh
CEO: Dr. Rezaei
Province: Chaharmahal & Bakhtiari



Kalhor Daneh Jonoob
CEO: Mr. Rashidi
Province: Khuzestan



Pegah Jahan Nama
Province: Golestan



Hashtgerd Supplement
CEO: Dr. Nosrat
Province: Alborz



Orom Gohar Daneh/Morgh Dehkadeh
CEO: Mr. Hossaini
Province: West Azarbaijan



Fara Daneh
CEO: Mr. Heydai
Province: Chaharmahal & Bakhtiari



Sepahan Daneh Parsian
CEO: Dr. Ghalamkari
Province: Isfahan



Sorbon Shomal
Province: Mazandaran

IRAN FEED MILLS LIST

	COMPANY NAME	PROVINCE
1	Union of Agricultural Cooperatives and Animal Husbandry Industry	Eeast Azerbaijan
2	Ahad Talebi Oskouyi	
3	Poor Mohammad Animal Feed	
4	Athar Daneh Azerbaijan	
5	Ata (Azaran Taghzie Arian)	
6	Azar Dam Salem	
7	Azar Daneh Bonab	
8	Azar Daneh	
9	Armin Tejarat Aidin Mehr	
10	Behin Daneh Azerbaijan	
11	Araz Daneh Tabriz	
12	Cooperative Aris Ahar	
13	Marand and Suburbs Livestock Farmers Cooperative	
14	Tak Daneh Motahhar Azerbaijan	
15	Jahan Daneh Haghighi	
16	Nirou Sahand	
17	Damaneh Sabalan Sarab	
18	Dan Sazan Sahand Tabriz	
19	Dehati Animal Feed	
20	Roshd Daneh Malekan	
21	Rezvan Daneh Tabriz	
22	Zardaneh Karan Marand	
23	Qaflan Roshd	
24	Abolfazl Zaer Kaaba Livestock and Poultry Feed Factory	
25	Baghi Livestock and poultry feed factory	
26	Hassan Mohammadzadeh Livestock and Poultry Feed Factory	
27	Rahman Hajipour Livestock and Poultry Feed Factory	
28	Salman Fathi Livestock and Poultry Feed Factory	
29	Ali Afkhami Azad Mehrabani Livestock and Poultry Feed Factory	
30	Karim Abbaszad Livestock and Poultry Feed Factory	
31	Maghsoud Taheri Livestock and Poultry Feed Factory	
32	Mehdi Fakour Lahijan Livestock and Poultry Feed Factory	
33	Kamel Daneh	
34	Kimia Daneh (Ali Hussein Rashedi)	
35	maghsoud Shadbakhsh Animal Feed	
36	Negin Dane Gharb	
37	Poultry and aquaculture feed of Azerbaijan	
38	Kimiaparvar Arasbaran	
39	Zarrin Daneh Ojan	
40	Hamed Livestock Feed	

	COMPANY NAME	PROVINCE
41	Feshangi Livestock and poultry feed	Eeast Azerbaijan
42	Baghi livestock feed	
43	Forouzan Daneh Sahand	
44	Sepehr Sanat Sahand (Bam animal feed)	
45	Livestock and poultry feed Rahim Lou	
46	Amand Rural Cooperative	
47	Altin Dane Sahand	
48	Azardan Maragheh Livestock and poultry feed	
49	Shahab Daneh Abarghan	
50	Mousavi livestock feed	
51	Marzabad Chay Varzeqan Company	West Azerbaijan
52	Behbod Roshd Afzoun Alborz	
53	Niroudaneh Sahand Maragheh	
54	Nik Daneh Sahand Maragheh	
55	Behzad Khazani	
56	Jafar Sojoudi	
57	Jafar Mokhtari Zirmanloo	
58	Hossein Karimzadeh	
59	Davoud Piri	
60	Khoushe Tala	
61	Faradan Company	
62	Flamingo Macrian Industry	
63	Sattar Hemmati animal feed	
64	Eshno Gostar Cooperative Company	
65	Miandoab Livestock Feed Company	
66	Faregh Dan	
67	Darafshan Gharb Company	
68	Sarshar Sardasht Company	
69	Masrour	
70	Agro-industrial Tolou Azerbaijan	
71	Dan Nooshan Zist Kaboudan Poultry Company	
72	Araz Dan Chaypareh Company	
73	Orum Dordaneh	
74	Orum Gohar Daneh Company	
75	Bukan Livestock Feed Company	
76	Cooperative Company ٤٧٦ Negin Miandoab	
77	Yekshavah	
78	Eshno Zarrin Production Company	
79	Sardar Bukan Livestock Feed Company	
80	Zarrin Daneh Livestock and Poultry Feed Company	
81	Gostaran Dam	
82	Gostar Salmas Livestock and Poultry Company	

	COMPANY NAME	PROVINCE
83	Sabah Gol Urmia Company	West Azerbaijan
84	Tolou Azarkavian Company	
85	Milad Mahabad Animal Feed	
86	Keyvan Morgh Par Talaye Mahabad	
87	Morgh Dehkade	
88	Mohammad Kamiar	
89	Mir Adel Hosseini	
90	Noruddin Shojaee	
91	Azaran Tak Morgh Sabalan(Sadr Daneh)	
92	Arta joujeh Sabalan	
93	Par Sefid Asra	Ardabil
94	Samian Feed Animal	
95	Animal Nami Feed	
96	Rahim Ghorbanzadeh	
97	Ziba Dan Sabalan	
98	Amiran Daneh	
99	Zarrin Gousfand Ardebil	
100	Aras Dam Shahab	
101	Azar Daneh Meshgin	
102	Momtaz Daneh Pour Ghasemi	
103	Moghan Agriculture and Industry	
104	Shahrouz Soudi	
105	Alireza Najafi	
106	Arazimak(Salem)	
107	Mehdi Jafari	
108	Afshin Avara	
109	Borna Dan Roshd	
110	Behsan Taghzie Arian	
111	Behin Tash	
112	Karaj Nomadic Cooperative Company	
113	Keshtzar Karaj livestock feed factory	
114	Makian Alborz	
115	Bahavand Daroo Company	
116	Zarrin Daneh Pars Makian Chakavak	
117	Nikan Dam Arvin	
118	Foroktoz Nab	
119	Rasha Taghzie Novin	
120	Morgh Nojan	
121	Tirujh Part Arad Novin	
122	Rata Tejarat Roshd	
123	Semoulina Zar	
124	Zar Foroktoz	
125	Avijeh Pharmed Pharmaceutical and Food Industries Development Group	Alborz
126	Pars Kron	
127	Kimia Fam	
128	Faraz Daneh Fardad	

	COMPANY NAME	PROVINCE
129	Kani Dam	Alborz
130	Hojhabr Complementing livestock and poultry	
131	Pegah Daneh Tochal	
132	Perssa	
133	Tohid Darou Pars	
134	Tehran Mokammel Pars	
135	Chineh (Ajdad Zarbal)	
136	Khorak Pardaz Hezardasht	
137	Karaj livestock feed	
138	Davood Ghaffari Tirabadi	
139	Roshd Daneh	
140	Reza Ghasemi Jamalabadi	
141	Vahdat Savojbolagh	
142	Central Cooperative of Poultry Farmers Feed Factory	
143	Tala Roshd Nami	
144	Jamali livestock feed	
145	Farhikhtegan Zarnam	
146	Mohammad Shahsavari	
147	Mina Toyour Poultry Farm Company	
148	Mokammelsazi Hashtgerd	
149	Nakhl Zeitoun Azaran	Bushehr
150	Ahangi Livestock Feed	
151	Madani Livestock feed	
152	Hanna Sanaat	
153	Brishk	
154	Arian Dan Dashtestan	Chaharmahal and Bakhtiari
155	Persian Gulf Agricultural Cooperative Tangestan	
156	Ebrahimi Livestock Feed	
157	Daneh Gostar Ahmad	
158	Taam Sazan Meigou Va Mahi Bandar	
159	Havoorash	Chaharmahal and Bakhtiari
160	Tiho Sanat	
161	Roshd Daneh	
162	Daneh Talayi Amir Zardkouh	
163	Gholamreza Kahid	
164	Kimiagaran Taghzie	
165	Ghezel Daneh Rangin Kaman	
166	Zarrin Daneh Borujen	
167	Suleiman Heydari Livestock Feed	
168	Union of Cooperative Companies of Haft Iil Lang Bakhtiari Tribe	
169	Cooperative 199 Lordegan	
170	Jahan Daneh	
171	Fara Daneh	
172	Daneh Sazan Rashin Company	

	COMPANY NAME	PROVINCE
173	Shahd Zagros Jahanbin Company	Chaharmahal and Bakhtiari
174	Tala Sabzan	
175	Fidar Patira	
176	Pouya Daneh Ilia	
177	Ali Babaei Livestock Feed Factory	
178	Kimia Daneh Zagros Borujen	
179	Dordaneh Felard	
180	Sureshjan Livestock Feed Factory (Agricultural and Livestock Union of the Province)	
181	Morvarid	
182	Prdis Roshd Mehregan	Fars
183	Raman Aquatic Feed Factory	
184	Ebrahim Rajabi Livestock Feed Factory	
185	Royajhen Arsanjan	
186	Farbe Daneh Pasargad	
187	Shamim Larestan	
188	Khansha Livestock and poultry feed	
189	Fars Livestock Farmers Cooperative Union	
190	Rajabi Livestock Feed Factory	
191	Avijeh Daneh Pars	
192	Behshir Cooperative of Lepui cattle breeders	
193	Processing of Kimia Dane Fars vegetable oil	
194	Poultry and Aquaculture Factory of Soltani	
195	Emerald seeds	
196	Livestock and poultry feed in Persia	
197	Green Seed Clear Gold Cooperative	
198	Dersa Larestan	
199	Derna Daneh Lamerd Cooperative Company	
200	Negin Daneh Lamerd Cooperative Company	
201	نیی دانه نیریز	
202	Community Verified icon	
203	Shahin Pars Livestock Feed Factory	
204	Gheshlagh Livestock Feed Factory	
205	Almas Daneh Simorgh Livestock and Poultry Feed Factory	
206	Aria Marvdaneh Livestock and Poultry Feed Factory	
207	Pars Dam Saba Livestock and Poultry Feed Factory	
208	Pars Dan Beiza Livestock and Poultry Feed Factory	
209	Zorrat Zar Daneh Fars	
210	Shahdaneh Gostar Hamavard Fars Poultry and Livestock Feed Factory	

	COMPANY NAME	PROVINCE
211	Shayan Livestock and Poultry Feed Factory	FARS
212	Livestock and poultry feed factory of Fadak general purpose multi-purpose cooperative	
213	Livestock and poultry feed factory of Fars Agro-industry and Animal Husbandry Company	
214	Fath Daneh Maham Arvand Livestock and Poultry Feed Factory	
215	Kavousi Livestock and Poultry Feed Factory	
216	Toyour Fars Complex	
217	Mohsen Bahramian Livestock and Poultry Feed Factory	
218	Morvarid Sabz Beiza	
219	Naser Sajjadian Livestock and Poultry Feed Factory	
220	Negin Daneh Livestock and Poultry Feed Factory	
221	Dorsa Poultry Feed Factory and Poultry Concentrate	
222		
223	Vahdat Kharameh Livestock and Poultry Feed Factory	
224	۲۱ Beiza Livestock, Poultry and Aquaculture Factory	
225	Estakhr Livestock, poultry and aquatic feed factory	
226		
227	Darya Dasht Daneh	
228	Kimia Parsian Roshd Afza Poultry Feed Factory	
229	Negin Daneh Poultry Feed factory	
230	Shirin Daneh	
231	Royan Daneh Pars	
232	Daneh Rizan	
233	Pouya Nahadeh Kimia	
234	Nik Daneh Pars	
235	Etehad Gilan	GILAN
236	Exir Roshd Caspian	
237	Hajiabad Amlash livestock feed	
238	North Field (Farzin Karimi)	
239	Rudsar Animal Feed Cooperative	
240	Amlash Livestock Cooperative	
241	Chilik Sazan Iranian	
242	Khazar Daneh Fooman	
243	Lushan Animal Feed	
244	Dan Waresk Gasker	
245	Dordaneh Arya Lushan	
246	Dor Nab Khazar	
247	Reihan Daneh Zarrin Gilan	
248	Riz Jolbak Parsian	

	COMPANY NAME	PROVINCE
249	Sabz Daneh Sahar	GILAN
250	Sepid Makian	
251	Sefid Roud	
252	Samam	
253	Pak Daneh Fooman	
254	Shomal protein Masuleh	
255	Abdullah Navid	
256	Karim Navid	
257	Gohar Nab Verna	
258	Gilak Daneh Navid	
259	Sepidar Alborz Pars	
260	Moharrami	Golestan
261	Vahdat	
262	Artan Daneh Golestan Company	
263	Altin Daneh Sahra	
264	Pegah Jahan Nama Company	
265	Chineh Sahar Farda Kordan Company	
266	Gonbad Animal Feed Company (Mohammadi)	
267	Dam Gostar Qaboos Daneh Company	
268	Daneh Talayi Gonbad	
269	Dordaneh Amin Altin Sahra Company	
270	Golestan Salamat Daneh	
271	Kimia Roshd Company	
272	Nemoune farm company	
273	Nami Toyour Golestan	
274	Nodeh Keshavarz Gonbad	
275	Atieh Silo Golestan Factory	
276	Arian Roshd Kar Gorgan	
277	Banafsh Tappe	
278	Behshad Afarin Factory	
279	Persian Factory Phase 1	
280	Protein Imen Tab Factory	
281	Taimaz Seed Factory	
282	Damiar Golestan Factory	
283	Rame Golestan factory	
284	Zarrin Daneh Gonbad	
285	Zarrin Roshd Golestan Factory	
286	Zanjire Peigir Factory	
287	Shafa Daneh Gorgan	
288	Paitakht Daneh Gorgan	
289	Makian Daneh Hyrcan	
290	Shabaviz Hyrcan	
291	Taimaz o Peikar feed	
292	Gol Daneh Sahra	
293	Daneh Aftab Golestan	

	COMPANY NAME	PROVINCE
294	Sahar Avang Qoqnous Poultry Feed	Golestan
295	Golza Production Company	
296	Ahmad Ali Khosravi's food	
297	Gorgan Va Dasht	
298	Feizabad livestock and poultry feed	
299	Zardaneh Golestan livestock feed	
300	Oloufe Afarin Golestan	
301	Pouya Hyrcanian Novin	
302	Akbari livestock and poultry feed	
303	Bahman Sadaf Golestan	
304	Dan Mirdaneh Golestan feed factories	
305	Araz Novin Khanjari	Hamedan
306	Sefid Bal Qaboos Factory	
307	Abad Golestan Factory	
308	Aria Daneh Golestan	
309	Minoo Sabah Factory	
310	Negar Golestan Factory	
311	Negin Daneh Sahra	
312	Vashmgir factory (Beh Chineh)	
313	Porotein Daneh	
314	Jolge	
315	Jolge Asad Abad	
316	Chagh Va Chele	
317	Chagh Va Chele Kaboudar Ahang	
318	Hami Omid Hamedan	
319	Khorak Dam Daneh Daran	
320	Khorak Dam Danehaye Gharb	
321	Kamel Daneh Zarrin Dasht	Hormozgan
322	Moeni Animal Feed	
323	Khoushe Talayi Mad	
324	Khoushe Talayi Hamedan	
325	Rakhshan Ard Razan	
326	Zarrin Silou	
327	Talayi	
328	Kamel Daneh Zarrin Nahavand	
329	Sabz Dasht	
330	Kesht Va Sanat Khazal Nahavand	
331	Kosar Khazal Alvand	
332	Golpar Sina	
333	Golfam Alvand Kaboudar Ahang	
334	Poudr Mahi Sayad Gheshm	
335	Poudr Mahi Meto Gheshm	
336	Poudr Mahi Aras	
337	Poudr Mahi Jonoub	
338	poudr Mahi Sardin Sahel Jask	
339	Poudr Mahi Sirik	

	COMPANY NAME	PROVINCE
340	Hormoz Daneh Khalij Fars	Hormozgan
341	Poudr Mahi Abdollah Hatami	
342	Poudr Mahi Mahmoud Mobaraki	
343	Poudr Mahi Horosh	
344	Talaye Daran Amin Gheshm	
345	Mehdi Yari	
346	Khorak Dam Va Toyour Hossein Amani	
347	Sepid Daneh Bastak	
348	Ard Morvarid Hormozgan	
349	Poudr Mahi Meto Shahr Aftab	
350	Taavoni Khorak Abziyan Hatami	
351	Hormoz Dam	
352	Fanous Mahian Gheshm	
353	Poudr Mahi Saba Majd Gheshm	
354	Kimia Jask	
355	Kargah Tolid Poudr Mahi Ramin Salehi	Isfahan
356	Rural Cooperative Union Golpayegan	
357	Arghavan Pardis	
358	Ashkan Daneh	
359	Esfahan Mokamel	
360	Araz Daneh Sepahan	
361	Ardestan Food Factory	
362	Sepahan Kian Tejarat Cooperative Company	
363	Nik Daneh Espadana Cooperative Company	
364	Tali Gene Pars Company	
365	Behdaneh Khorak Nam Avaran	
366	Dan Mehr	
367	Bahram Ghasemi Livestock and Poultry Factory	
368	Kesht Va Dam Ghiam Isfahan	
369	Afarin Daneh Sepahan	
370	Mah Daneh Ashayer	
371	Larsk livestock and poultry feed	
372	Pariaz Daneh	
373	Behriz Daneh Kavir	
374	Azmoon Daneh Gharb Sepahan	
375	Behparvaran Nami Naghsh Jahan	
376	Behin powder Gostar Iranian	
377	Pak Avard	
378	Pajouhesh Parvar Zayand	
379	Damparvar Sepahan Pishgam	
380	Tiran and Krone Livestock Farmers Cooperative	
381	Najafabad Poultry Farmers Cooperative	
382	Chakavak Daneh Zavareh	
383	Mottahed Livestock Feed	

	COMPANY NAME	PROVINCE
384	Nivan Golpa livestock feed	Isfahan
385	Khorak Sazan Esfehan	
386	Poultry feed Mohammad Hossein Mehri	
387	Dalankouh	
388	Dan Gostar Ahook	
389	Dan Mobin Kashan	
390	Daneh Zarrin Naghsh Jahan	
391	Daneh Gostar	
392	Dordane Espadana Zarrin	
393	Dastchin Awli	
394	Roshd Toyour Zavareh	
395	Zarrin Javdaneh Khansar	
396	Sepahan Daneh Parsian	
397	Sahargahan	
398	Full Fat Ghaempour	
399	Kabileh Shahreza	Ilam
400	Omid Amir Yousefi Feed Factory	
401	Chavdaneh	
402	Ali Davoodi Poultry Feed Factory	
403	Marta Gostar Damiar	
404	Espadana Halal Chain Complex	
405	Morvarid Daneh Sepahan	
406	Momtaz Daneh	
407	Negin Mazrae Herand	
408	Novin Roshd Shahrn Fode	
409	Ilam nomads	
410	Cooperative 449	
411	Samin Daneh Tanin Ilam	
412	Cooperative 1869 Ehtesham Hashemi	
413	Livestock and poultry feed Shams Ivan	
414	Roshd Kar Sarabeleh	Kerman
415	Zagros Daneh Ilam	
416	Morgh Daneh Ilam	
417	Production of Simorgh Animal feed	
418	Saharkhizan Jonoub Livestock Feed Factory	
419	Pourvali	
420	Kerman Poultry Farmers Cooperative	
421	Rafsanjan Cattle Breeders Cooperative	
422	Alpaca livestock feed	
423	Mumtaz Daneh Amin Sanat Jonoub Shargh	
424	Sirjan Rural Cooperative Union	
425	Parvar Estabragh Cooperative	
426	Gostar Shahr Babak food	
427	Kimaigaran Karmania	
428	Adan Daneh Kariman Kavir	

	COMPANY NAME	PROVINCE
429	Hassan Islam Kish (Islam Kish Broiler Industries)	Kerman
430	Tavanmehr	
431	Khoraksaz	
432	Royan Baharestan (Apashta)	
433	Simorgh (affiliate)	
434	Mahan Chicken Meat Production Complex Feed Factory (Affiliate)	Kermanshah
435	Pars Daneh Mumtaz (Avan Gandum Zagros)	
436	Pars Gharb	
437	Pak Agrin Dan	
438	Cooperative ٣٠٧٥ (Dan Part Kermanshah)	
439	Biston and Suburbs Livestock Farmers Cooperative	
440	Cooperative ٣٧٦٥ (Helani)	
441	Cooperative ٤٥٣١ Kowsar Daneh	
442	Cooperative ٣٥٢١ Prepared food and aquaculture Naghshin	
443	Cooperative ٤٦٠٦ Golchin Daneh Beigi	
444	Tiba Daneh Sazan Novin	
445	Ravansar Animal Feed	
446	Khorak Sazan Dalahoo	
447	Dan Avaran Bistoun	
448	Dan Bistoun	
449	Danehayeh Gharb	
450	Gharb Dorsa Daneh	
451	Zarrin Daneh Sanghar	
452	Kangavar Taherabadi Livestock Feed	
453	Gharb Daneh	
454	Cheshme Sefid	
455	Abedin Livestock and Poultry Feed Factory	
456	Zardaneh Ellipi	
457	Sattar Hosseini Factory	
458	Kermanshah Daneh	
459	Kia Daneh	
460	Mana Teb Biston	
461	Bistoun Agro-industrial Complex	
462	Hasteh Daneh	
463	Maki Dan Ahvaz	Khuzestan
464	Ebrahim Taghipour	
465	Khuzestan Aquatic Cooperative Union	
466	Behbahan Rural Cooperative Union	
467	Poultry Producers Services Cooperative (Pakdan)	
468	Production of livestock and poultry feed Ahvaz	
469	Cooperative of Fakoor Omidieh Animal Husbandry Complex	
470	Barzegar Rural Cooperative Company	

	COMPANY NAME	PROVINCE
471	Dasht Nissan Howeyzeh Cooperative	Khuzestan
472	Ehsan Qalavand Livestock Feed	
473	Samandar Rural Cooperative Company	
474	Chavil Zagros	
475	Rahmannejad Landing Livestock Feed	
476	Bostan Livestock Farmers Cooperative	
477	Shahid Raigani Nomadic Cooperative Company	
478	Masjed Soleiman Rural Cooperative Union	
479	Mountain livestock feed	
480	Hassan Hooshmandi	
481	Khodadad Bahmani	
482	Daneh Avaran Modern Anzan(Abbas Jamshidian)	
483	Etminan Tejarat Khuzestan Company	
484	Imen powder Jonoub	
485	Ronash Bidakh	
486	Bazr Baran	
487	Tahkim Ghadr Khuzestan Cooperative Company	
488	Rashid Daneh Jonoub Livestock and Poultry Feed Cooperative Company	
489	Daneh Talayi Dezful Cooperative Company	
490	Etehad Rural Cooperative Company	
491	Vahdat Rural Cooperative Company	
492	Mehr ٢ Shousha Production and Agriculture Company	
493	Sadaf Khuzestan	
494	Shoaibieh Livestock Production Company	
495	Rumez Livestock and poultry production company	
496	Zorrat Gostar Baharak Dez Company	
497	Silaj Oloufe Sorkheh Company	
498	Toyour Daneh Salamat Dezful	
499	Mahshahr Chamran Livestock and Poultry Feed Company	
500	Shahid Beheshti Agriculture and Industry Company	
501	Shahid Rajaei Agriculture and Industry Company	
502	Neishekar Haft Tappe	
503	Kalhardaneh South Company	
504	Kodis Khorak Pars	
505	Morgh Madar Saharaye Jonoub	
506	Navid Daneh Iranian Company	
507	Abdulreza Abdolkhani	
508	Abdulkazem Sorkheh	
509	Ali Saheb Mohammadi	
510	Faraj Omrani	
511	Mojtaba Jalilian	

	COMPANY NAME	PROVINCE
512	Fajr Kohgiluyeh Livestock and Poultry Feed (Kianmehri)	Kohgiluyeh & Boyer Ahmad
513	PaganTabiat Boyer-Ahmad Nomadic Cooperative	
514	Zar Daneh Fadak Basht	
515	Cooperative company of two hundred and nine production of livestock, poultry and aquatic feed of Zagros Novin lil	
516	Zar Dane Gostar ٥١٥Gharb	
517	Gharb Daneh Negin Baneh	Kurdistan
518	Sepehr Gharb	
519	Faravr Koud Dehgolan	
520	Horaman livestock and poultry feed	
521	Gharb Daneh Kimai Marivan	
522	Adan Roshd Abidar	
523	Sirvan Daneh Zarrin Zagros Kamyaran	
524	Livestock and poultry feed of Cooperative Abshar ٣٩٢ Dehgolan	
525	Khorshid Neshan Zaribar	
526	Saral poultry food supplement company	
527	Abshar livestock feed factory	
528	Kordestan Daneh livestock and poultry feed factory	
529	Kordestan jhinodan livestock and poultry feed factory	
530	Leilakh poultry feed and poultry factory	
531	Jeremiah seed poultry feed	
532	Saral Ghezel Ozan livestock feed	
533	Morgh Sabz Kerefto Kordestan	
534	Zarivar Daneh feed factory	
535	Badr food factory	
536	Gharb Daneh Bita Kamyaran	
537	Kamyaran Daneh	
538	Cooperative ٢٧٢٧ Parnian Poultry Farmers-Amanj Daneh Kurdistan Saqez	
539	Jake Daneh Livestock and Poultry Feed Factory	
540	Gharb Daneh Abidar Zagros	
541	Hakan Daneh Cooperative ٣٥ Factory	lorestan
542	Pak Roshd	
543	Pishro Daneh Aligoudarz	
544	Cooperative ٥٦٨ Alshtar	
545	Tak Daneh	
546	Drush	
547	Khoram Daneh	
548	Nour Daneh	
549	Salamat	
550	Mehrab Abdulvand Livestock Feed	
551	Khoushe Daneh	
552	Hajivand livestock and poultry feed	

	COMPANY NAME	PROVINCE
553	Azna Livestock Farmers Cooperative	lorestan
554	Aligudarz and Suburbs Livestock Farmers Cooperative	
555	Mirza Hassan Abdulvand Livestock Feed	
556	Abdul Mohammad Issavand Cheraghi	
557	Takdaneh livestock and poultry feed	
558	Farhang Pirzadi feed	
559	Pars Koohdasht	
560	Kakavand livestock and poultry feed	
561	Dam Timar Kouhdasht	
562	Daneh Talayi Boroujerd	
563	Roshd Afza	
564	Zagrosneshinan	
565	Sadaf	Markazi
566	Mad Daneh Boroujerd	
567	Mana Daneh	
568	Sepiddaneh Zandieh	
569	Asia Azgar Production Complex	
570	Pars Daneh Khomein	
571	Hassani	
572	Khomein	
573	Etehadie Morghdaran	
574	Khoshdouni	
575	Dan Afshan Powder Ashtian	
576	Dane Chin Arak	
577	Daneh Chin Pars	
578	Daneh Morvarid Farahan	
579	Dordaneh Kavir	
580	Avijeh Darou	
581	Beh Roshd	
582	Damian Arak	
583	Daneh Matbou Saveh	
584	Daneh Sazan Simorgh	
585	Daneh Talayi Komijan	
586	Delijan Livestock Farmers Cooperative	
587	Sepid Shimi Cooperative	
588	Shahid Motahari Nomadic Cooperative	
589	Lajvar Aquatic Feed	
590	Ghasemi Livestock Feed Factory	
591	Sakha livestock feed	
592	Javan Daneh	
593	Danesh Gohar Mahestan	
594	Setare Talayi Komijan	
595	Mahallat Agricultural Cooperative of Livestock Breeders and Suburbs	
596	Production of livestock and poultry concentrate	

	COMPANY NAME	PROVINCE
597	Farivar Daneh Zaran	Markazi
598	Agricultural Cooperative Livestock Feed Factory of Central Industrial and Traditional Livestock Breeders	
599	Zarrin Daneh Farahan	
600	Behrood Mokammel	
601	Ghadiri Zadeh	
602	Golbar Shimi	
603	Javan Darou	
604	Tohid Daneh Kamareh	
605	Sahel fish	
606	Etehad Khazar Shomal	
607	Aras Bazaar	Mazandaran
608	Amol Behdaneh Tabarestan	
609	Aras Taban	
610	Alborz Makian	
611	Dan Awli Gostar Tabarestan	
612	Gohar Daneh Tabarestan	
613	Pouya Hyrcanian Novin	
614	Morgh Ajdad Mazandaran	
615	Alborz Dam Daroo	
616	Hosseinjanzadeh Livestock Feed	
617	Naeemai Mousavi Trading	
618	Kimia Gulfam Fars	
619	Aria livestock feed	
620	Hanna Daneh Talayi Hyrcan	
621	Production of Khazar Protein powder	
622	Kian Fara Pars	
623	Negin Khazar	
624	Livestock and poultry feed Ali Soleimani	
625	Kilka Fish Powder and Oil Production Cooperative ﻻﻻ	
626	Livestock and poultry feed Sari Dan	
627	Fish powder, oil and aquatic feed of Golshan Asour	
628	Golnaz livestock feed	
629	Ebrahim Ashouri Va Shoraka	
630	Arina Darouye Shomal	
631	Arina Roshd Shomal	
632	Pars Daneh Savad Kooh	
633	The secret of the North Seed	
634	Ghaemshahr Livestock Cooperative	
635	Ghaemshahr Poultry Farmers Cooperative	
636	Honest grain feed north	
637	Reza Mokhtari Livestock Feed	
638	Cyrus's livestock and poultry feed	
639	Arian Rad North	

	COMPANY NAME	PROVINCE
640	Amine Gostar Company	Mazandaran
641	Ebrahim Chamazian Livestock Feed	
642	Amol Roshd Saz	
643	Avid Livestock Feed	
644	Arian Roshd	
645	Sedghi brothers	
646	Nemati Brothers	
647	Beh Nirou Shomal	
648	Beh Pak Behshahr	
649	Behdaneh Shomal	
650	Parsadan Tabarestan	
651	Fateh Powder	
652	Golshan Asvar fish powder	
653	Cooperative ﻻﻻ	
654	Bars Kilka Cooperative	
655	Mazand Balq Sari Production Cooperative	
656	Poultry Farmers Cooperative	
657	Cooperative ﻻﻻ	
658	Tirang Daneh Tabarestan	
659	Khazar Tavakol livestock feed	
660	Caspian livestock feed	
661	Zare livestock feed	
662	Neka Pellet Mazandaran Livestock Feed	
663	Daneh Pak Khazar	
664	Dorna Pellet Savadkouh	
665	Doustadaran Ghadir packaging industry	
666	Behshahr Structure Rush	
667	Rojin Talayi	
668	Zarkhak	
669	Zarnab Daneh Shomal	
670	Zarrin Amrvan	
671	Zarrin Balan Shomal	
672	Sepehr Tonekabon	
673	Sorbon Shomal Factory Complex	
674	Solar Souye Alborz	
675	Sinaka Raqam	
676	Paul Daneh	
677	Cooperative Company ﻻﻻ	
678	Production Cooperative ﻻﻻ - Livestock feed	
679	Dorna Gostar Sefid Par production and packaging company	
680	Zarbal Company	
681	Sefid Daneh Company	
682	Shimi Alayesh Shomal	
683	Khazar Electric co	
684	Savadkouh Animal Medicines and Food Supplements Production Cooperative	

	COMPANY NAME	PROVINCE
685	Shimi Alayesh Shomal	Mazandaran
686	Saleh Koushesh	
687	Zayeat Mofidi	
688	Tala Daneh Shomal	
689	Fatemeh Badeli	
690	Processing and packaging of caviar eggs and fish of Abzi Gostaran Saei Company	
691	Ghatre Tala Noshahr	
692	Astian Fish Powder Factory	
693	Ashour fish powder factory	
694	Samim Zardaneh fish powder factory	
695	Shakeri - Kilkameli Fish Powder Factory	
696	Ali Bashiri Fish Powder Factory	
697	Arshia Caspian Powder	
698	Cassine Fish Powder Factory (Shimi Palayesh)	
699	Kilka PowderTehran Fish Powder Factory	
700	Morvarid Talayi Fish Powder Factory	
701	Behkam Daneh Sedaghat	
702	Behesht Chicken Pellet Feed Factory	
703	Tirang DanehTabarestan	
704	Sepid Dan Makian Iranian Animal Feed Factory	
705	Soleimani Animal Feed Factory	
706	Gohar Daneh Animal Feed Factory	
707	Hassan Fattahi Animal and Poultry Feed Factory	
708	Mazandaran Animal Feed Factory	
709	Velesht Darou Animal Feed Factory	
710	Hadizadeh Animal Feed Factory	
711	Zarpa Elahi Poultry Feed Factory	
712	Godarzi Livestock and poultry food industries	
713	Kavosh Sanat Mamtir	
714	Kayer Ganjineh	
715	Northern Agriculture and Industry	
716	BarSefid poultry slaughterhouse	
717	Zarbal Poultry slaughterhouse	
718	Kilka Sadaf	
719	Kimia Palayesh Kaspian	
720	Gol Pak	
721	Gol sefid Alborz	
722	Marshen Talayi Mazandaran	
723	Makian Lavich	
724	Mah Sanam Shomal	
725	Alborz Farm	
726	Milad Daneh Khazar	
727	Nasser Keramati Nia	
728	Negin Boudder	
729	Negin Toyour Shomal	

	COMPANY NAME	PROVINCE
730	Behdam Bojnourd animal feed	North Khorasan
731	Behdaneh Golestan (Bojnourd)	
732	Pars Khorasan Shomali	
733	Jabal Damavand Saba (Maneh Samalghan)	
734	Hassan Chamani Tikanlu	
735	Sabzdaneh Momtaz Baharan Atrak	
736	Al-Ghadir Bojnourd Multi-Purpose Cooperative Company	
737	Chamanzar Farooj Livestock and Industry Company	
738	Fasihi Livestock Feed Factory	
739	Back Pulad	
740	Part Dam	
741	Abdulrahman Taghizadeh	
742	Shir Pak Mehr Esfarayen Factory	
743	Goldasht (Shirvan)	
744	Qazvin Livestock Breeders Union	Qazvin
745	Energy protein Shayan	
746	Pak Daneh	
747	Isa Baghdadi	
748	Pharmacists' production laboratories	
749	Rahavard Caspian Company	
750	Arasanj Agricultural Cooperative and Livestock Supply Company	
751	Ramand Danesfahan Livestock Cooperative Company	
752	Haji poultry feed	
753	Nasr Danesfahan Cooperative Company	
754	Golestan Tak Livestock and Poultry Feed Company	
755	Takestan Dairy Farmers Agricultural Cooperative Company	
756	Reza Taherkhani Food Factory	
757	Zarrin Seed Growth Production Cooperative	
758	Agricultural Cooperative Company to meet the needs of Qazvin poultry farmers	
759	Mohammad Ali Safavie Food Factory (Shams Daneh)	
760	Ebadi Livestock Feed	
761	Livestock and poultry feed production Hamidreza Haji (Sepiddaneh)	
762	Mahmoud Fassih Ramandi	
763	Takestan Poultry Farmers Cooperative	
764	Buin Zahra Dairy Farm Cooperative Feed Factory	
765	Chav Daneh Negin Gharb	
766	Razi Pour Animal Feed	
767	Dam Esteril	
768	Daneh Tak	
769	Zarrin Daneh Massoud's oil seeds	
770	Ziaran Taleghan Agro-industry Complex	

	COMPANY NAME	PROVINCE
771	Seloloz NovinTak Arash	Qazvin
772	Cyans Lab	
773	Sayalan Sam	
774	Simorgh Buin Zahra	
775	Safavieh livestock and poultry feed	
776	Faraz Daneh Avand	
777	Farandish	
778	Damiyar Jame	
779	Feed B.	
780	Pars Daneh ٢ Setare feed factory	
781	Kimia Dam	
782	Kavosh Daneh Sepehr Pouya	
783	Negin Khorak Laya	
784	Pars Daneh Aria	
785	Ahmad Asvad	Qom
786	Aria Don Roshd	
787	Ashian Bazr Zorrat	
788	Agricultural Cooperative of Broiler Farmers in Qom and its suburbs	
789	Rouzamad livestock and poultry feed factory	
790	Jafarabad and Suburbs Livestock Farmers Cooperative	
791	Agricultural Cooperative of Qom and Suburbs Livestock Breeders	
792	Ibrahim Barati Livestock Feed	
793	Kimia Kaw Bamdad	
794	Kimia Dam Kayhan	
795	Arad Arisman	
796	Corn Serena	
797	Behparvaran Cooperative	
798	Kahak and Suburban Livestock Farmers Cooperative	
799	Qanavat Cattle Breeders Cooperative	
800	Dehghani livestock feed	
801	Asiab Mashin	
802	Soheil Pars Alvand Kimia	
803	Ashian Bazr Zorrat	
804	Airik Daneh Shokoochieh Company	
805	Taj Daneh Saba Company	
806	Dana Dey Company	
807	Kimia Danesh Alvand	
808	Mojtaba Amiri	
809	Qom Laban Complex	
810	Qom Mehrgol	
811	Yekdaneh Gostar Paya	
812	Zaveh Rural Cooperative Union	Razavi Khorasan
813	Behin Roshd Asak	

	COMPANY NAME	PROVINCE
814	Behin Roshd Quchan	Razavi Khorasan
815	Dordaneh Khorasan Razavi	
816	Sani Qouchan	
817	Avije Daneh Sabzevar (Mehdi Kazemizadeh)	
818	Dunk Toos	
819	Ahmadzadeh Poultry Feed	
820	Bakherz livestock feed	
821	Afarin Jam	
822	Salar Dasht-e Jovin	
823	Agricultural Production Cooperative Company for Livestock, Poultry and Aquatic Feed, Dasht-e Jovin	
824	Rangin Daneh Rashtkhar	
825	Mehr Chineh Chin Kian	
826	Tolou Tejarat Sarv Abiz	
827	Teno Daneh (Yousefabadi)	
828	Kosar Daneh	
829	Fariman Livestock Farmers Cooperative	
830	Salem Mahsoul Forouzan Mehr	
831	Gonabad Cattle Breeders Cooperative	
832	Negin Daneh Gonabad	
833	Bahardaneh Poultry Feed Factory	
834	Habibi Gonabad livestock and poultry feed	
835	Roshd Daneh Khavaran	
836	Tehran Toyour Sabzandishan Bartar	
837	Neishabour Livestock Farmers Cooperative	
838	Shahdaneh Golshan Firoozeh Neishabour	
839	Kamal Livestock and poultry feed	
840	Aria Dan Neishabour Livestock Feed	
841	Behshiran Shadiakh Agricultural Farmers Agricultural Cooperative Company	
842	Fazel Kakhk Gonabad	
843	Aria Dan Neishabour Company	
844	Asse Dan Company	
845	Dordaneh Qutb Torbat	
846	Behdam Roshd Khorasan Company	
847	Binalood Daneh Firouzeh	
848	Afrozjam Cooperative Company	
849	Salem Jam	
850	Ghaem Marandiz	
851	Zarrin Daneh Sabzevar Cooperative Company	
852	Aria Dam Shargh Firouzeh Agricultural Cooperative Company	
853	Neishabour Livestock Farmers Cooperative Company	
854	Torbat Jam(Sanati Ba Mazze)	
855	Sabzevar Poultry Farmers Cooperative Company (Bayhaq)	

	COMPANY NAME	PROVINCE
856	Gonabad Broiler Farmers Cooperative Company	Razavi Khorasan
857	Mian Jolge Neishabour	
858	Kimia Dan Torbat Cooperative Company	
859	Marzneshinan Ganjineh Doqarun	
860	Nemoune Joqatay	
861	Khoushe Zarrin	
862	Khorasan Animal Feed Production Company	
863	Rokh Animal Feed Production Company	
864	Daneh DaranToos	
865	Ghaem Mashhad	
866	Sabzevar Livestock and Poultry Feed Production Company	
867	Pars Daneh Beyhaq	
868	Toos Quchan Animal Concentrate Production Company	
869	Fawakeh	
870	Javaneh Khorasan Company	
871	Khorak Pardaz Hezare Novin	
872	Toos Neishabour Animal Feed Company	
873	Nazdaneh Khorasan Animal Feed Company	
874	Zardaneh Deezbad Livestock and Poultry Feed Company	
875	Momtaz Daneh Toos Quchan	
876	Zist Fanavar Ariana	
877	Ranjbaran Ati Jovein Company	
878	Talayi Bartar Pejman Oil Company	
879	Zommorod Daneh Pars Attar Company	
880	Khorasan Animal Feed Production Company	
881	Gohar Daneh Shargh Company	
882	Goharkala Novin Shargh Company	
883	Fariman Mother Chicken Complex Company	
884	Deezbad	
885	Chineh Chin Khorasan	
886	Farasoudmand Toos Supplement Company	
887	Yekta Zaman Khorasan Company	
888	Animal Feed Torshiz Bardaskan	
889	Saleh Kashmar livestock and poultry feed	
890	Gholamhossein Hamidi	
891	Farasat Daneh Shargh	
892	Payam Avaran Sabztaravat Factory	
893	Talayi Jam Animal Feed Factory	
894	Freeman Livestock Feed Factory	
895	Kosari Moghaddam animal feed factory	
896	Golchin Sabzevar Livestock Feed Factory	
897	Salem Daneh	
898	Livestock and poultry feed factory of Khaf Farmers Cooperative	

	COMPANY NAME	PROVINCE
899	Mashhad Livestock and Poultry Feed Factory	Razavi Khorasan
900	Torshiz Mirneqab	
901	Sepid Daneh Sarbedaran	
902	Dan Morgh Mother Dizbad	
903	Daneh Talayi Simorgh Attar Neishabour	
904	Sarakhs (Astan Quds Razavi)	
905	Vivan	
906	Heram Talayi Shargh	South Khorasan
907	Islamie	
908	Omid Sabz Sarayan	
909	Behdaneh Khezri	
910	Mavaddat Poultry Farmers Cooperative	
911	Khoushe Shafagh Boshravie	
912	Dan Va Oloufe Shargh	
913	Dan Va Oloufe Khoushine Birjand	
914	Sepid Daneh Birjand	
915	Setare Kian Birjand	
916	Livestock and poultry feed Sajjad Sarayan	
917	Nehbandan Livestock Farmers Cooperative Company	
918	Tabas Asseh	Semnan
919	Saman Nomadic Cooperative Union	
920	Exir Toos Ferdos	
921	Goldoneh Cooperative	
922	Mohammad Derakhshan	
923	Hariseh's livestock and poultry feed	
924	Semnan Kuhsar Agriculture and Industry Complex	
925	Iran Phosphate	
926	Firoozdam factory	
927	Livestock feed of Garmsar Cattle Farm Cooperative	
928	Parvarbandan Garmsar livestock feed	
929	Nomadic Union Livestock Feed	
930	Livestock and poultry feed of 1V Semnan Cooperative	
931	Firoozdam Feed production factory	
932	Damghan Damiar Livestock Feed	
933	Khorram Alborz Radin livestock feed	
934	Livestock feed for insane ranchers	
935	Livestock feed for Maral Shahroud cattle breeders	
936	Livestock feed of Kalateh Khij farmers	
937	Qoms Protein Manufacturing Company	
938	Shahroud fattening feed	
939	Semnan Kavir feed factory	
940	Semnan Nab Daneh	

	COMPANY NAME	PROVINCE
941	Nasser Pourkand fish powder	Sistan & Baluchestan
942	Hedayat Nasirpour fish powder	
943	Rahmat Kahrazeh Livestock Feed	
944	Abdul Khaleq Shahnavazi Livestock Feed	
945	Livestock and poultry feed Gholamreza Karimian	
946	Yousef Isa Zayi livestock feed	
947	Part Syrang Company	
948	Taftan Khash Nomadic Cooperative Company	
949	Agriculture and Livestock Cooperative Company ٥٠٢٧ Oloufe Hamoon Sistan	
950	Cooperative Company ١٣٣٣ Zabol Livestock Feed Production (Reza Harati)	
951	Chilan fish powder production company	
952	Daneh Talayi Taftan	
953	Hamid Livestock and Poultry Agricultural Services Company	
954	Zahedan Kavir Livestock Feed Company	
955	Daneh Talayi Chabahar Company	
956	Shilati Chile Industries Company	
957	Chabahar Seafood Company	
958	Mah Daneh Jonoub	
959	Khalij Fars Shilati Complex Company	
960	Amir Hossein Yousefi	Tehran
961	Ajeh Nab Tehran	
962	Dam Pishgam	
963	Varamin Parvarband Cattle Breeding Cooperative Company	
964	Sarshar Daneh	
965	Soroush Roshd Company	
966	Etminan livestock and poultry feed	
967	Makian Noavar Emrouz	
968	Behparvar Group	
969	Rouyesh Arian agro-industry	
970	Sana Dam Pars	
971	Morghdaneh production company	
972	Araz Dam Kabir	
973	Aria Mah Roshd	
974	Darousazan Simorgh Production Complex	
975	Aris Tejarat Mazrae Pars	
976	Danpakhsh Livestock and poultry	
977	Laneh Morgh Agriculture and Industry Complex	
978	Pish Faravari Jhelatin Tochal	
979	Motahedan Gousht Ghermez Varamin Cooperative	
980	Nomadic Agricultural Cooperative of Varamin Qarchak Pishva County	
981	Mahd Amin Kian Group	
982	Radin Fidar Farda	

	COMPANY NAME	PROVINCE
983	Sanat Ghazayi Korosh	Tehran
984	Pars Pooyesh Vitamin	
985	Buhler	
986	Ghallat Ban	
987	Mehr Sanat Fidar	
988	Saeed Abad livestock and poultry feed	
989	Bustan Gostaran Parsa	
990	Behshahr Industrial Company	
991	Fadak Agriculture and Industry Company	
992	Margarine Company	
993	Pars Livestock Feed Factory	Yazd
994	Kala Avaran Araz	
995	Sadeghi Poultry Feed Factory	
996	Yasna Mehr	
997	Zia Daneh Meybod Cooperative	
998	Kargar livestock and poultry feed	
999	Harati livestock feed	
1000	Daneh Kavir Rastaq	
1001	Vahdat Ashkzar Livestock Cooperative	
1002	Mehriz Yazd Livestock Farmers Cooperative	
1003	Yazd Mokammel	
1004	Kavir Phosphate	
1005	Goldaneh Yazd	
1006	Pishgaman Sanat Dam Va Zare Meibod	Zanjan
1007	Zarrin Daneh	
1008	Yazd Livestock Farmers Cooperative	
1009	Riz Daneh Rustaq Livestock Cooperative Company	
1010	Jame Gostar Dam Va Toyour Yazd	
1011	Simorgh Company	
1012	Ahmad Salimi	
1013	Hindushka Livestock and Poultry Feed Factory (Turkey Integrated Industry)	
1014	Arka Dane Alborz	
1015	Pouyesh Daneh Zanjan	
1016	Tak Mokamel Andia	
1017	Khodabande Ezzat Yaghoubi Livestock feed	
1018	khodabande Livestock Breeders	
1019	Zanjan Livestock Breeders	
1020	Zarrin Daneh Hidaj	
1021	Sepehr Dordaneh Alvand	
1022	Saba Morgh Noavaran Zanjan	
1023	Khodabandeh cattle feed factory	

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