

Iran Animal Feed Market

2nd Edition, Sep 2019



Iran Feed
Industry Association



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IRAN
Animal Feed Market
2nd Edition 2019



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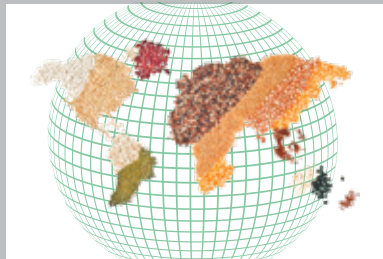
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Iran Feed Industry Association Services

Tax Advice

The tax advisers of this association seek to resolve the tax cases of members

Social Security Consultant

Advice on employers' rights in law and regulations as well as resolving disputes

Contract matters Supervision

Due to the problems experienced by our members with their clients in relation to business contracts, experienced experts of association advise members

Ranking Center

Ranking the feed mills for the issuance of compilation records, training and advice in the field of quality, excellence and productivity

Arbitration Center

All claims and disputes arising out of and relating to commercial contracts can be referred to the Arbitration Center

Commercial Consulting

We are committed to helping our businessmen and manufacturers by delivering the best and accurate information and providing analysis of marketing for domestic and international markets

Legal Claims

The group of lawyers of this association began its activity in 2014 in order to provide consultancy services to applicants

International Affairs

Trying to improve trade relations with other countries, removing barriers and trade problems of its members in foreign countries, capacity building, informing and advising the members and stakeholders for increasing their share from the export target markets



We Try More



**Majid
Movafegh Ghadirly**

*Author & IFIA
Chairman of the Board*

Foreword

The importance and necessity of supplying food, because of population growth and increase of consumption levels on the one hand, and depletion of resources along with climate change on the other, has made agriculture in developed and developing countries particularly significant, and has also created a special competitive environment in the production of agricultural crops in terms of meeting domestic needs and export.

Also, Iran holds a special international strategic and climatic status among the neighboring countries. The animal feed industry as the key chain among the livestock, poultry and fishery sectors, is the most important industry in food production and food security in the world. Therefore, special attention has been paid to the animal feed industry in Iran's agricultural development programs, such as plans for increase and optimization of production, consumption and export capacity of animal feed in Iran, the most important of which is creation of value chains.

A successful agricultural and animal feed industries are not restricted to farming and breeding units, but also to the production of basic goods, all the processes involved in the various sub-sectors, including the supply and equipping of raw materials for production, maintenance, processing, packaging, marketing, distribution and delivery.

Development of an agricultural products value chain is the most prioritized policy of the Ministry of Agriculture-Jahad, hence the IFIA, through the valuable efforts of producers and activists in the animal feed sector, and despite the existing challenges, has been able work in the diverse and expanding areas of the value chain for livestock and the feed industry, and has an important and admirable role to play in enhancing national production, food security, job creation and reducing dependencies.

Activities such as preparation and publication of the "**Iran Animal Feed Market Report 2019**" provides a unique opportunity for protein supply chains stakeholders and industry activists to introduce capabilities in national and transnational arena and play an important role in updating the needs of this strategic industry.



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
Managing Director of Iran Feed, Drug
& Additive Joint-Stock Company



Reza Savari
Vice – Chairman
Managing Director of Keyvan Morgha
Partalae Mahabad Company



Seyyed Ali Kheirie
Member of the Board
Managing Director of Setare Kian
Birjand Company



Ahmad Salahshoor
Treasure
Managing Director of Gohardane
Shargh Company



Keyvan Estiri
Secretary of the Board
Chairman of Mehr Chine Chineh Kian
Company



Amir Miran Amoli
Member of the Board (Alternate)
Chairman of Amol Behdane Tabarestan



Amir Amini
Member of the Board (Alternate)
Chairman of Semolina Zar Ind.



Peyman Zolfagharian
Secretary General of IFIA



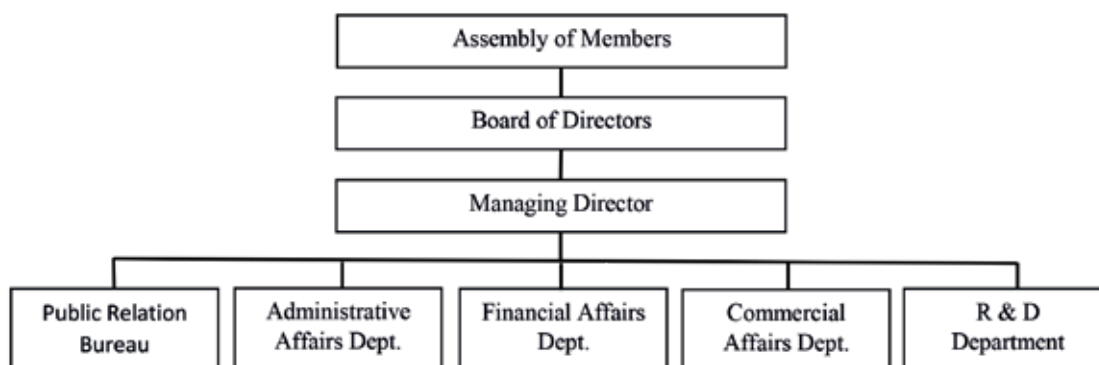
Iran Feed, Drug & Additive Joint-Stock Company

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
Partalae Mahabad Company



Gholam Reza Nosrt
Memeber of IFDAC
Managing Director of Hashtgerd
Supplement Company



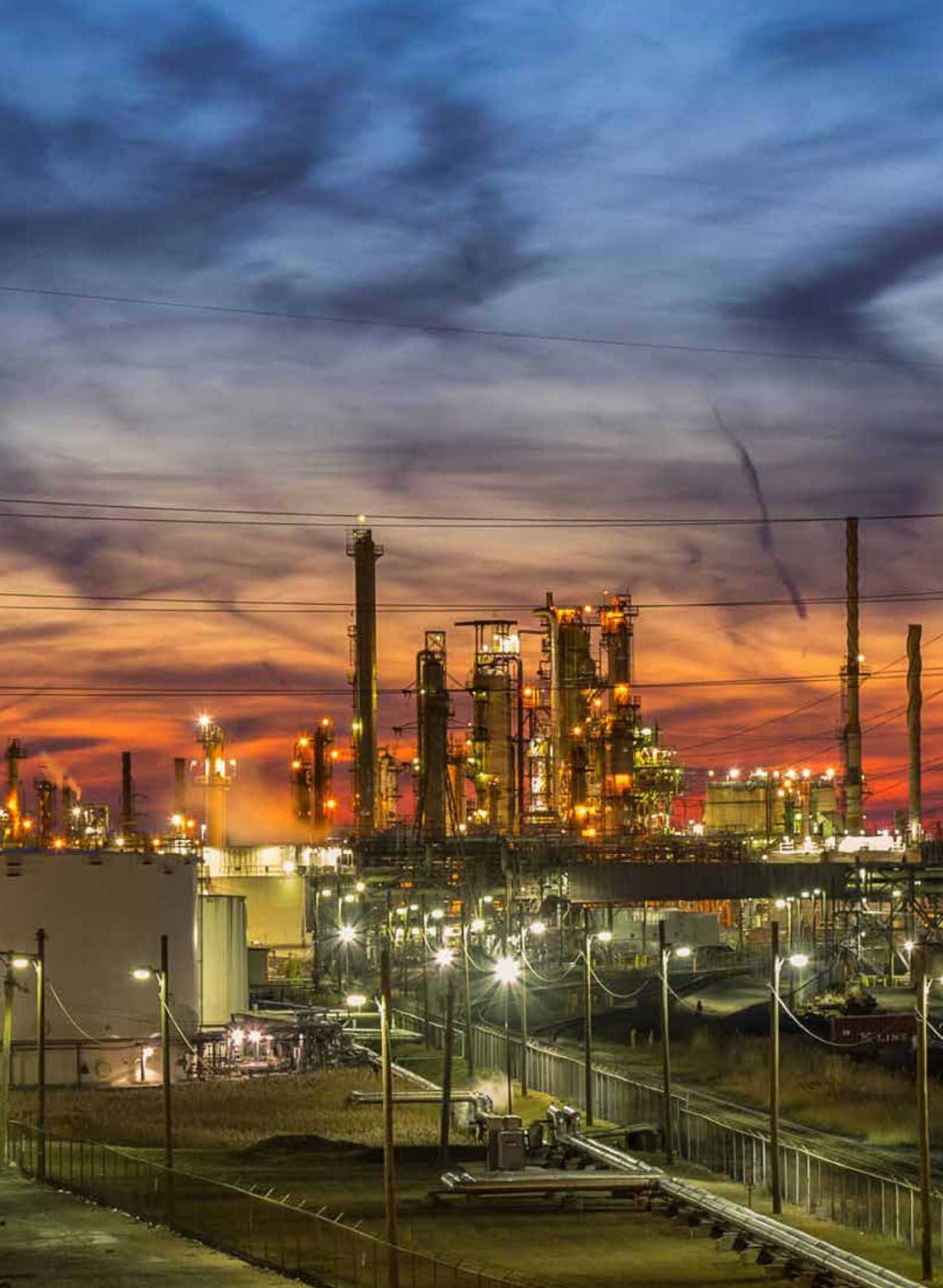
Majid Movafegh Ghadirly
Managing Director of IFDAC



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

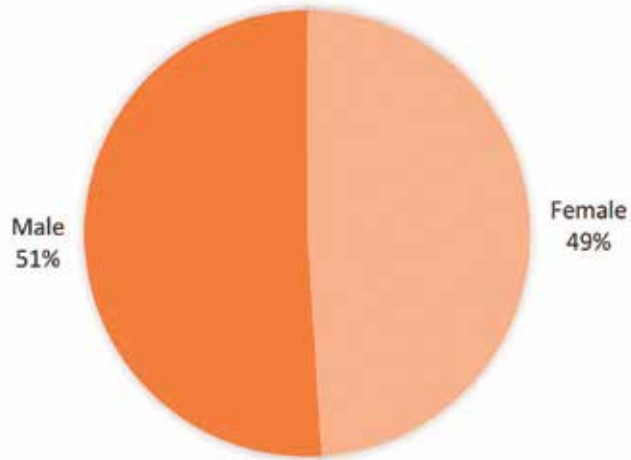
Official Name	Islamic Republic of Iran
Capital	Tehran
Largest city	Tehran
Official language	Persian
Government	Islamic republic
Area	Total 1,648,195 km ² (18 th) - Water: (%) 0.7
Population	79.93 mn, 2016 census, (17 th) - Density: 45/km ² (163 rd) - 116.6/sq m ²
Currency	Rial (IRR)
Time zone	IRST (UTC+3:30)-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



Population

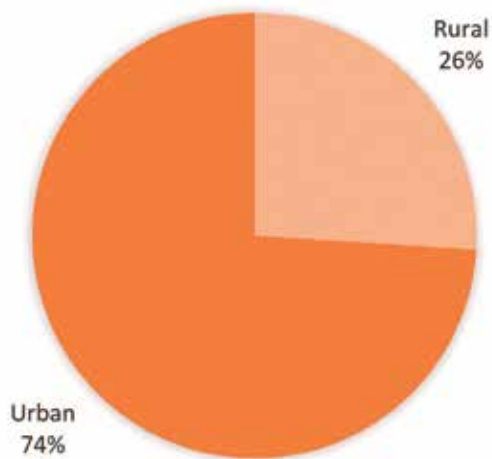
According to the latest census, Iran's total population was 81.1 million, of which 51 and 49 million were male and female. Also 74.35% and 25.64% were urban and rural, respectively, in the year ended March 2018. The population growth had a downward trend, reaching from 2.46% during the 1986 - 1991 period,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

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



Source: Statistical Center of Iran

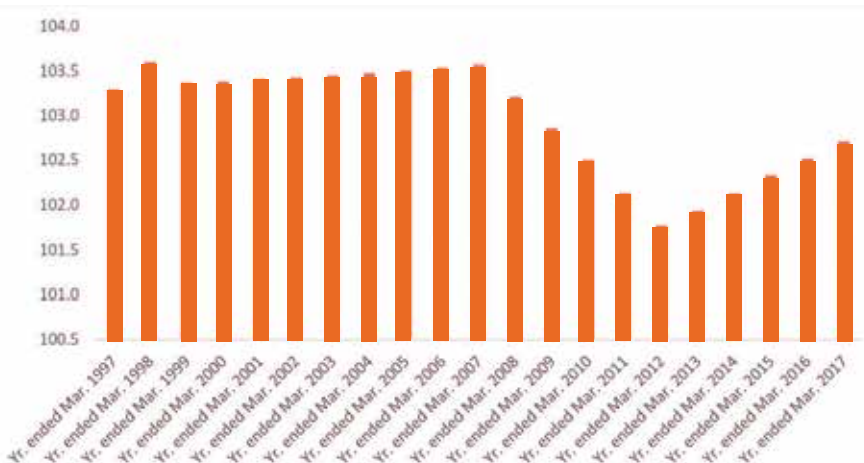
Figure 1-2. Residence Status in the Yr. ended Mar. 2017 - %



Source: Statistical Center of Iran



Figure 1-3. Gender Ratio in the year ended March 2017- %



Source: Statistical Center of Iran

GDP & Economic Growth

According to the Central Bank, the GDP amounted to 6,941,000 bn IRR (Constant Price; 2012) and the economy experienced 3.7% growth in the year ended March 2018. The International Monetary Fund (IMF) predicted that GDP growth will be 4% in the year ended March 2019 and given the financial sector reforms, the trend will increase to 4.5%, in the average run and the GDP evaluated to 431.9 bn USD in the year ended March 2018.

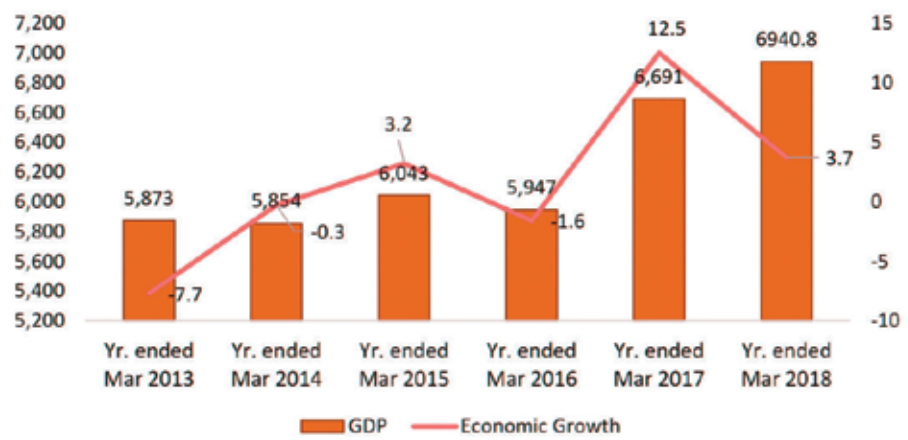
Table 1-2. GDP & Economic Growth (Constant Price; 2012)

	Yr. ended Mar.2015	Yr. ended Mar.2016	Yr. ended Mar.2017	Yr. ended Mar.2018	Jun.2019
GDP; Constant Price (000 bn IRR)	6,043	5,947	6,691	6,941	1,688
Economic Growth (%)	3.2	-1.6	12.5	3.7	1.8
GDP; Current Price (bn USD)	434.5	376.2	405.0	431.9	-

Source: CBI

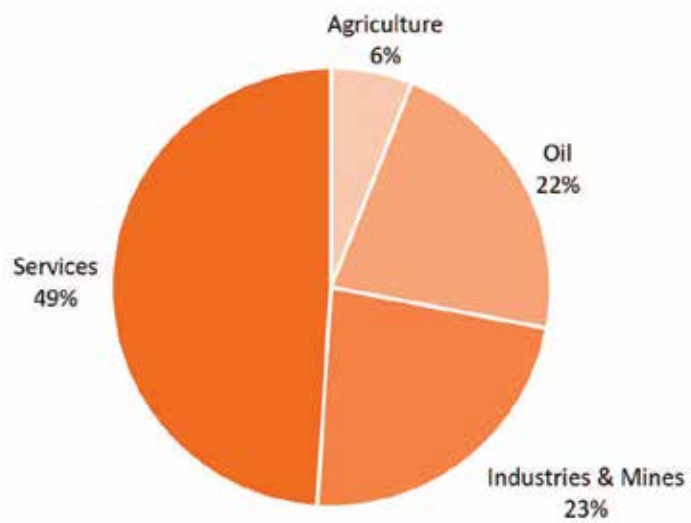


Figure 1-4. GDP & Economic Growth -000 bn IRR/ %



Source: CBI

Figure 1-5. GDP Composition - %



Source: CBI

Inflation

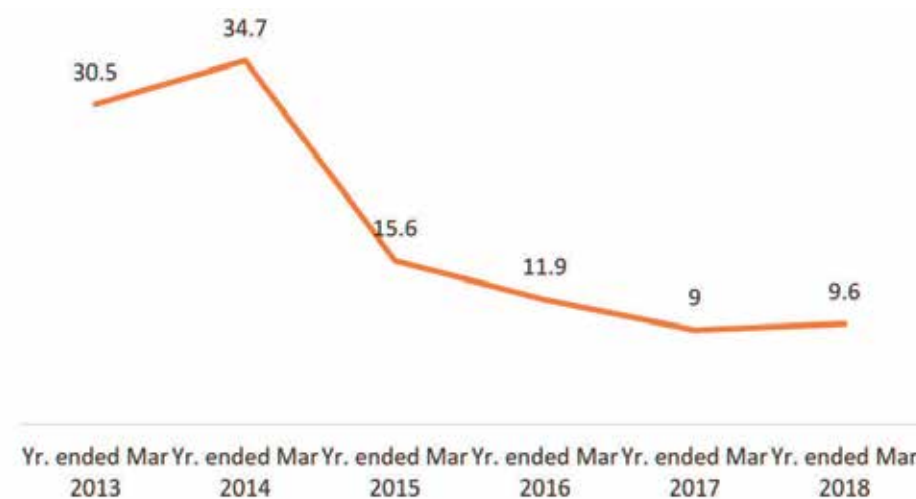
Currently, production cost are increasing and aggregate demand is among the main determinants of inflation. The average inflation rate reached 9.6% the year ended March 2018. According to the International Monetary Fund forecast, Iran inflation rate was 10.529% to 10.1% from in the year ended March 2017 to 2018.

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: CBI

Figure 1-6. Inflation - %



source: CBI

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 12% in the year ended March 2019 and was predicted to reach 11.7% in 2019, according to the IMF.



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 2017, 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. 2013	Yr. ended Mar. 2014	Yr. ended Mar. 2015	Yr. ended Mar. 2016	Yr. ended Mar. 2017
Total Gini Coefficient	0.37	0.37	0.38	0.39	0.39
Urban Gini Coefficient	0.35	0.35	0.36	0.37	0.37
Rural Gini Coefficient	0.33	0.32	0.34	0.34	0.34

Source: CBI

Foreign Trade

The non-oil export amounted to 117,228,000 tons, 44,310 million USD, declined by 12% in volume and 5.7% in value in the year ended March 2019. The import volume reached 320,460 tons and 42,612 million USD, which grew by 17.5% and 21.75% in volume and value, compared to the same period in the previous year.

Table 1-6. Non-Oil Export & Import - 000 tons/ mn USD

	Yr. ended Mar. 2017		Yr. ended Mar. 2018		Yr. ended Mar. 2019	
	Value	Volume	Value	Volume	Value	Volume
Export	44,042	129,892	46,931	132,300	44,310	117,228
Import	43,684	33,399	54,302	38,736	42,612	320.46
Trade Balance		358		(7,371)	1,698	

Source: IRICA

Exchange Rate

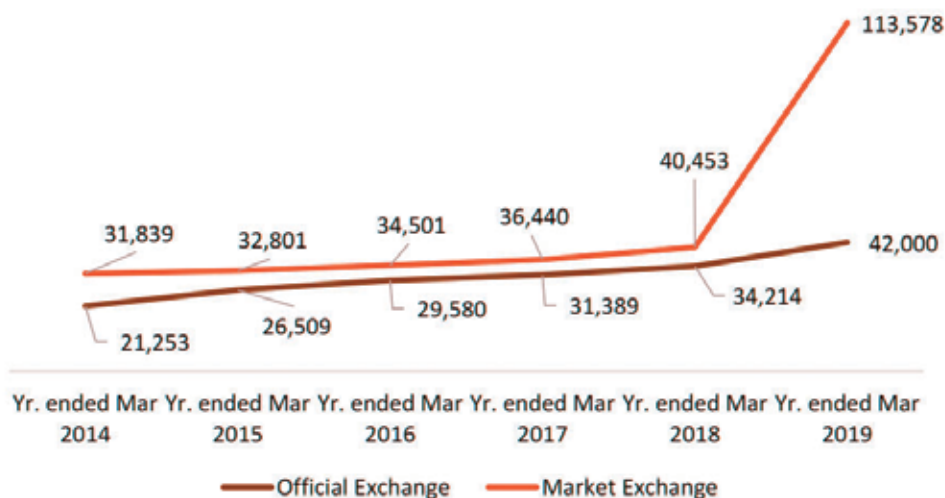
The official rate of the Central Bank and the market rose by 22.76% and 180.76%, while the exchange rate gap was 71,578 IRR, in the year ended March 2019.

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

	Yr. ended Mar. 2015	Yr. ended Mar. 2016	Yr. ended Mar.2017	Yr. ended Mar.2018	Yr. ended Mar.2019
Official CBI Rate	26,509	29,580	31,389	34,214	42,000
Market Rate	32,801	34,501	36,440	40,453	113,578

Source: CBI

Figure 1-7. Average Exchange Rate - USD/IRR



Stock Exchange Index

The Iranian stock exchange market grew significantly in the year ended March 2018, the main reasons for which were growth of metal and mineral prices in global market and increasing exchange rates in the domestic market, placed the metal group at the top of the shareholder's interest.

Table 1-8. Stock Exchange Index

	Yr. ended Mar. 2015	Yr. ended Mar. 2016	Yr. ended Mar. 2017	Yr. ended Mar. 2018	Yr. ended Mar. 2019
TEDPIX	62,532	80,219	77,230	96,290	178,659
Industry Index	51,296	66,994	66,100	86,082	161,031
Top 50 Index	2,576	3,254	3,035	4,036	7,668

Source: TSE



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 first-degree 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.

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 3.8% of GDP, 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

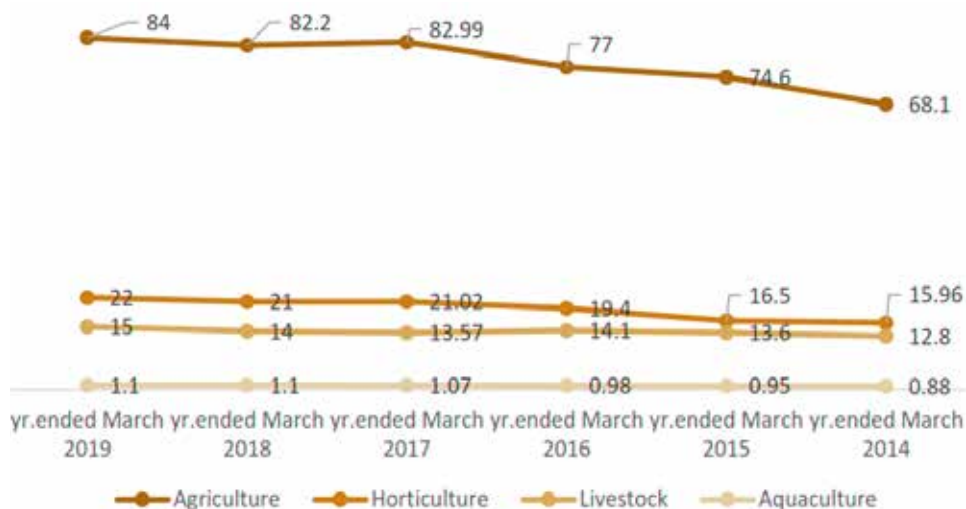
The crops production has experienced an upward trend in the past few years, the total amount of crops reaching 122 million tons with a 21.4% rise in year ended March 2019 compared to 2013. Crops, of the total amount of agricultural products, have a share of 70% of the total agricultural sector in Iran. 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. 2014	Yr. ended Mar. 2015	Yr. ended Mar. 2016	Yr. ended Mar. 2017	Yr. ended Mar. 2018	Yr. ended Mar. 2019
Crops (mn tons)	68.1	74.6	77	82.9	82.2	84.0
Total production share (%)	69.6	70.6	69.1	69.9	69.4	68.8
Horticulture (mn tons)	15.9	16.5	19.4	21.0	21	22
Total Production Share (%)	16.3	16.5	17.4	17.7	17.7	18.0
Livestock (mn tons)	12.8	13.6	14.1	13.5	14	15
Total Production Share (%)	13.1	12.8	12.6	11.4	11.8	12.3
Aquaculture (mn tons)	0.9	0.9	0.9	1.0	1.1	1.1
Total Production Share (%)	0.9	0.9	0.8	0.9	0.9	0.9
Total (mn tons)	97.7	105.6	111.5	118.6	118.3	122.1

Source: Ministry of Agriculture-Jahad

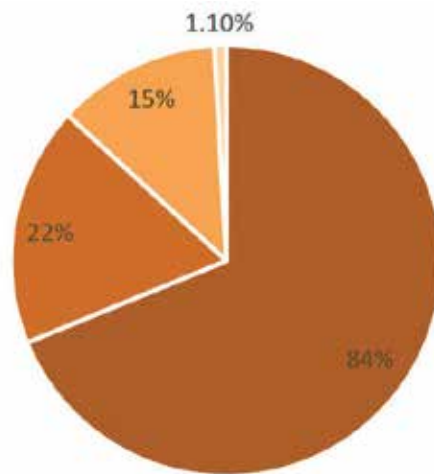
Figure 3-1. Agricultural Production -mn tons



Source: Ministry of Agriculture-Jahad

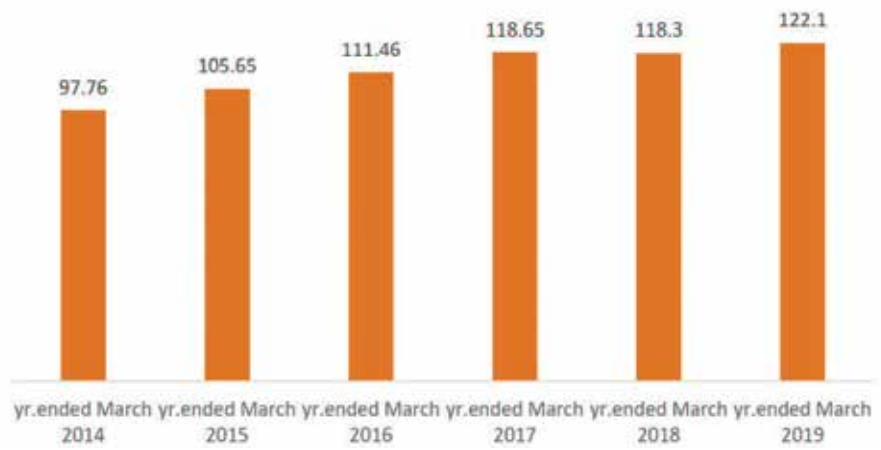


Figure 3-2. Agricultural Combinations - Yr. ended Mar. 2019-%



Source: Ministry of Agriculture-Jahad

Table 3-2. Total of Agricultural Products -mn tons



Source: Ministry of Agriculture-Jahad



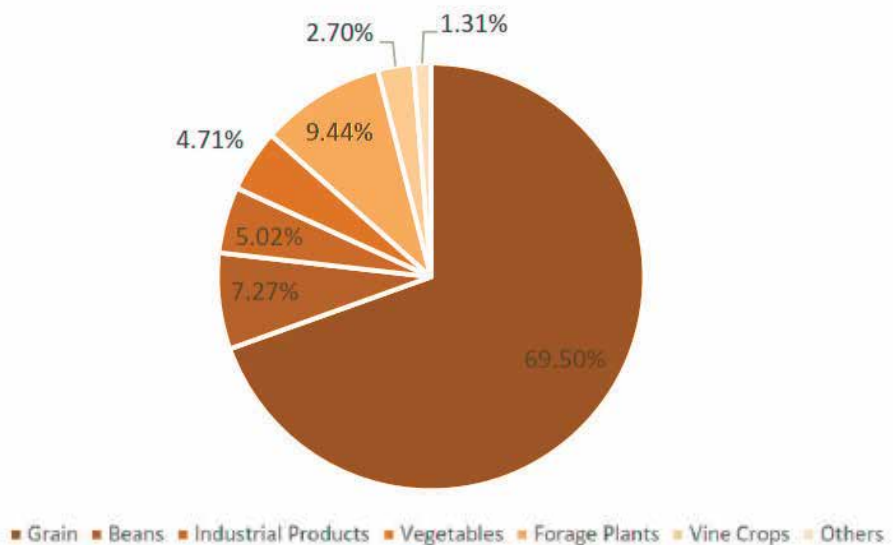
Crops

Under Cultivated Land

The cultivated land is about 11 million hectares including grain, beans, industrial products, vegetables, cucurbits and forage plants. About 54% and 46% 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 3-3. Under Cultivated Land -%



Source: Ministry of Agriculture-Jahad

Production

In the arable years of 2016-2017, from the total amount of 82.2 million tons of crops, 19.65 million tons was grain (23.9%), 700,000 tons bean (0.85%), 16.46 million tons industrial products (20.03%), 16.97 million tons vegetable (0.64%), 8.03 million tons cucurbits (9.77%), 20.18 million tons forage plants (20.46%) and 203,000 tons crops (12.66%). Wheat (15.09%), corn (12.66%), sugar beet (0.25%), sugarcane (9.49%), alfalfas (7.73%), tomatoes (6.51%), potatoes (6.11%), and other vegetable (5.22%) and watermelons (4.67%) had the highest shares, respectively. The total amount of crops comprised 92.2% irrigation and 7.1% dry land.

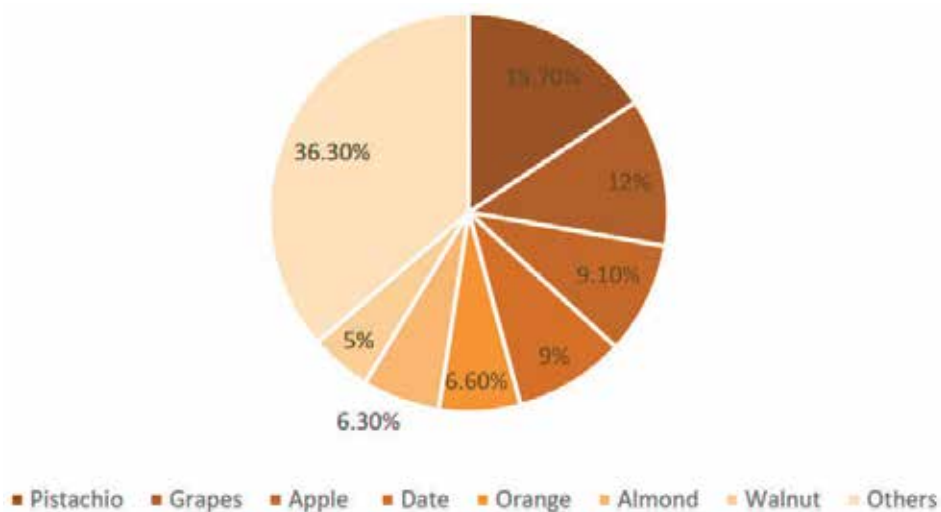
Horticultural Products

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 3-4. Fertility of Horticultural Products -%



Source: Ministry of Agriculture-Jahad

Production

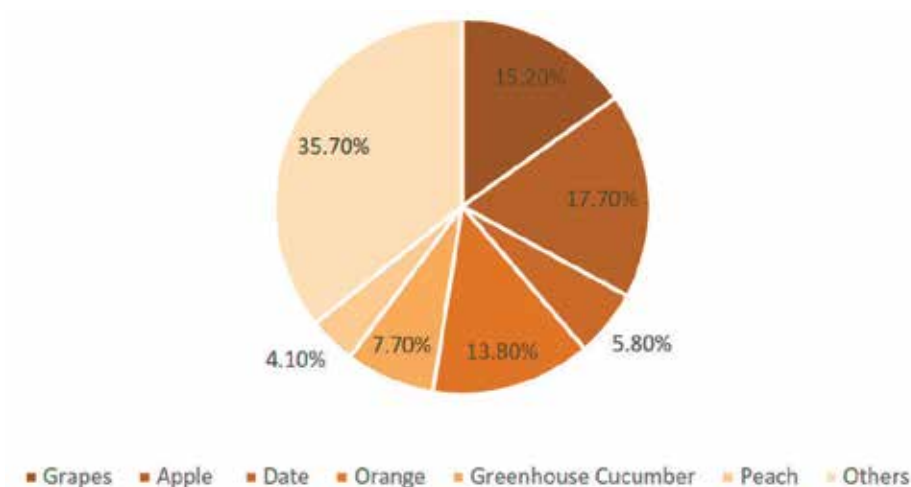
In the year ended March 2018, the volume of major horticultural products was 21 million tons, about 4 million tons (19.2%) of which were pome fruits, 2.5 million tons (12%) drupe fruits, 3.3 million tons (15.6%) seed-bearing fruits, 756,000 tons (3.6%) fruit chips, 37,700 tons (0.2%) cold-climate fruits, 7.7 million tons (36.7%) subtropical fruits, 158,000 tons with 0.7% tropical fruits, 2 million tons (9.6%) greenhouse products and 492,000 tons with 2.3% other horticultural products. The total share of horticultural products (64.2%) is for 6 products. The major share of horticultural products were apples (17.7%), grapes (15.2%), oranges (13.8%), greenhouse cucumbers (7.7%), dates (5.8%) and peaches (4.1%).

Table 3-2. Major Horticultural Products -mn tons

	Volume	Total (%)
Apple	3.7	17.7
Grapes	3.2	15.2
Orange	2.9	13.8
Greenhouse Cucumber	1.6	7.7
Date	1.2	5.8
Peach	0.85	4.1

Source: Ministry of Agriculture-Jahad

Figure 3-5. Major Horticultural Products -%



Source: Ministry of Agriculture-Jahad

Export & Import of the Agriculture Sector

Export

The export of the agricultural sector reached 6,941,190 tons with 5.4 % rise and its value fell to 6391.76 million USD with 2.84 % decrease (in the year ended March 2019). Meanwhile, the highest volume of exported crops by the agriculture sector were 67.12 % for the arable sector subcategory, 21.6 % for horticulture, 9.1 % for livestock and poultry, and in terms of value 41% for arable, 35.6 % for horticulture, and 17 % for livestock and poultry. The large volume of exports by the agricultural sector in terms of weight accounted for 768,000 tons watermelons, 572,860 tons tomatoes, 529,780 tons fresh potatoes, 424,940 tons apples, 342,670 tons onions and garlic, and five major export crops at a value of 326 million USD for pistachios, 267 million USD for saffron, 244.74 million USD for tomatoes, 229.2 million USD for apples, and 202.9 million USD for potatoes.

Table 3-3. Exports by Agriculture Sector

	Yr. ended Mar. 2016	Yr. ended Mar. 2017	Yr. ended Mar. 2018	Yr. ended Mar. 2019
Value (mn USD)	6200.33	5683.5	5770.42	6391.76
Total non-oil Export Share (%)	12.26	12.97	12.34	14.43

Source: Ministry of Agriculture-Jahad

Import

Agricultural sector import reached 2,047,880 tons with about 0.4% increase in terms of volume and its value reached 10,716.90 million USD with 0.40% decrease in the year ended March 2019.

During the same period, the volume of agricultural import was allocated to crops, horticulture, and animal husbandry with a share of 92.2%, 5.5%, and 1.3% in terms of weight, respectively. The major volume of agribusiness import was for crops, horticulture, and animal husbandry with a share of 74.8%, 12.1% and 11.53% in terms of value, respectively.

Meanwhile, major crops were feed corn 895,587 tons, barley 2,648,480 tons, soybean 2,538,660 tons, white and semi polished rice 1,607,870 tons, and soybean meal 1,429,880 tons. Major import were feed corn 2,089.2 million USD, white and semi polished rice 1,622.11 million USD, soybean 1,161.1 million USD, meal 651.24 million USD, and barley 602.63 million USD, in terms of value.

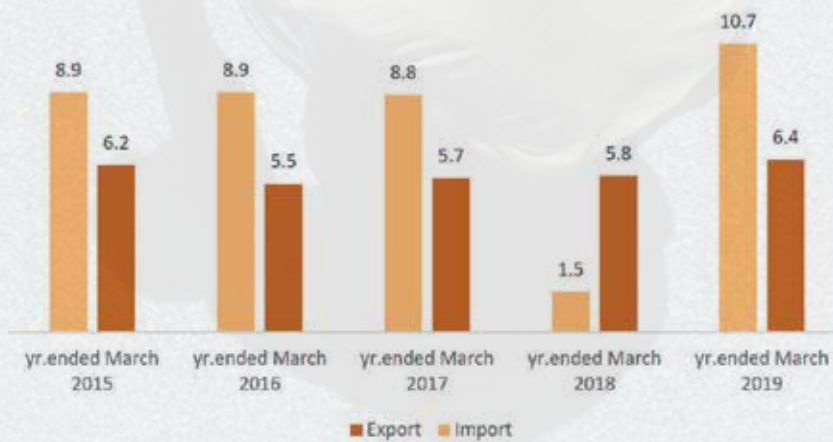
Table 3-4. Agricultural Import

	Yr. ended Mar. 2015	Yr. ended Mar. 2016	Yr. ended Mar. 2017	Yr. ended Mar. 2018	Yr. ended Mar. 2019
Value (mn USD)	8,907	8,882.2	8,780.4	10,523.8	10,716.9
Total non-oil Import Share (%)	16.63	22.22	20.56	20.39	26.02

Source: Ministry of Agriculture-Jahad



Figure 3-6. Agricultural Export & Import -mn USD



Source: 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 4 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

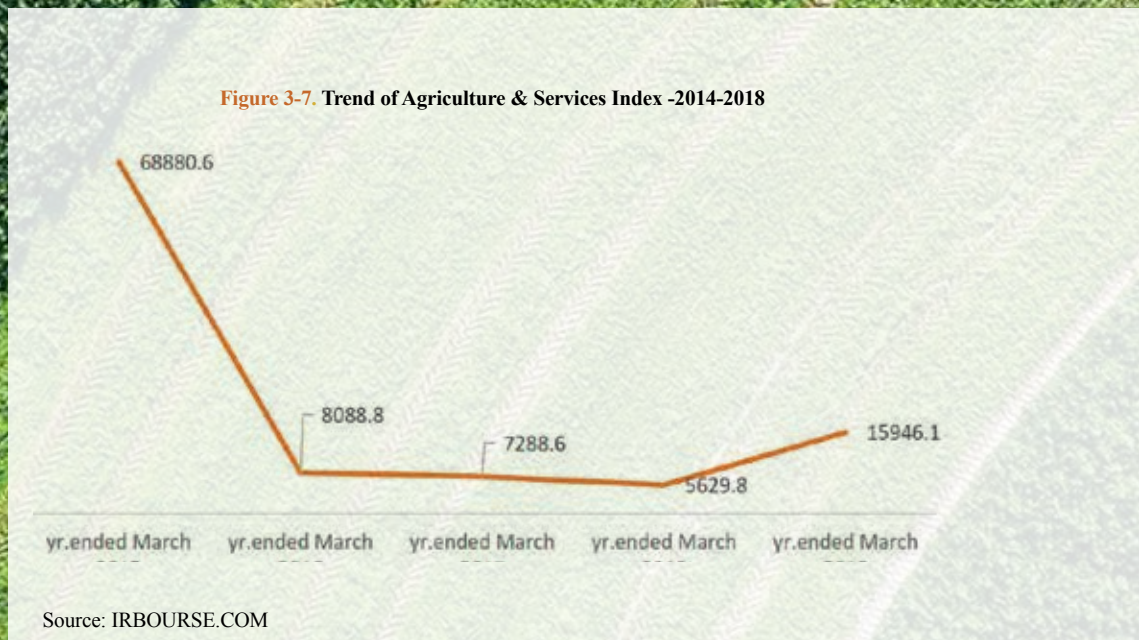
After the Islamic Revolution (1979), the government established a Relief Fund for suffering Agricultural Units with the approval of the IRR insurance law (1984) and Agricultural Insurance Fund (AIF), to manage farmer risks and to supplement their income. At present, agricultural insurance guarantees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

Status of Active Agricultural Companies in the Securities Exchange

Agricultural and animal husbandry stocks are traded under the title of Agriculture and Services. P/E ratio of Agriculture and Services is 14.37. In the year ended March 2017, the total value and volume of agricultural products in Iran Mercantile Exchange was 33.1 billion IRR and 3 million tons, respectively, signifying a growth of 17.7% and 18% compared to the previous year. The highest volume and value of agricultural exchanges was for wheat. The volume of agricultural products increased in Iran Mercantile Exchange causing an increase in the total agricultural shares from 9.9% to 11.1% in the 2016-2017 period.



Figure 3-7. Trend of Agriculture & Services Index -2014-2018



Source: IRBOURSE.COM

Strength & Opportunities of the Agricultural Sector

Strength

- ◆ Diversity in agricultural activities (crops, horticulture, animal husbandry, fisheries) and related products
- ◆ Agricultural priority in national programs by food security
- ◆ Arable Lands
- ◆ The potential of natural resources such as medicinal plants, industrial, food and forage

Opportunities

- ◆ Proximity to export markets such as Iraq, Afghanistan and the Persian Gulf
- ◆ Ability to develop aquaculture and fishing in southern and international waters
- ◆ Adequate capacities in mechanization development, conversion and complementary industries

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
- ◆ 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





LIVESTOCK SECTOR



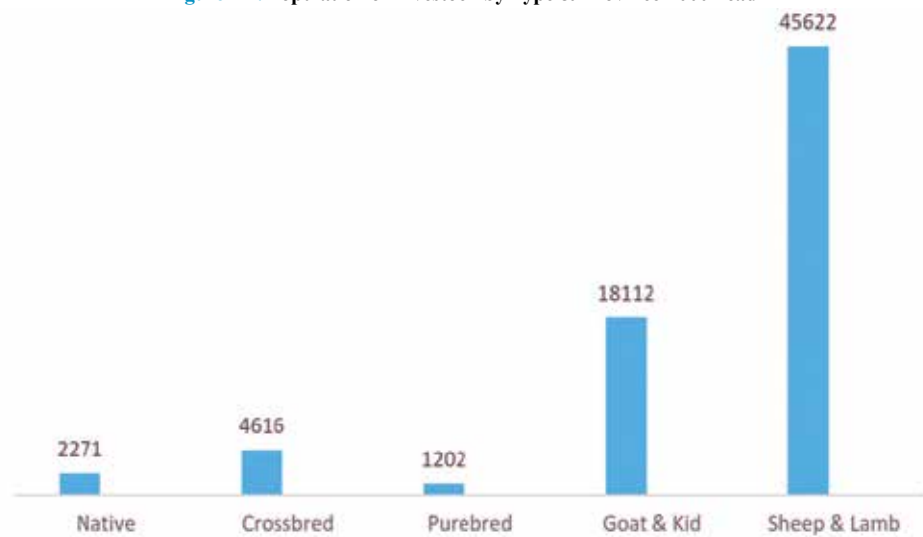
Overview

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 8,089,000 and categorized into 1,202,000 head purebred, 4,616,000 head crossbred, 2,271,000 head native in the year ended March 2018. Provinces including Tehran with 214,000 head of purebred, Mazandaran with 386,000 head of crossbred and 269,000 head of native cattle holding the first rank in calf and cattle livestock. The population of sheep and lamb was estimated at 45,622,000 while the population of goat and kid was 18,112,000. Provinces, including Razavi Khorasan, had a volume of 5,996,000 of sheep and lamb and Fars 2,523,000 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. Population of Livestock Classified by Type & Province - 000 head

	Sheep & Lamb	Goat & Kid	Calf & Cattel			Total
			Crossbred	Purebred	Native	
East Azerbaijan	3,019	530	287	32	181	500
West Azerbaijan	3,559	387	253	13	164	431
Ardabil	1,720	312	132	23	146	302
Isfahan	1,398	494	357	194	18	570
Alborz	323	42	75	75	0	150
Ilam	1,243	505	29	12	39	81
Bushehr	390	596	25	1	17	43
Tehran	882	123	213	214	8	436
Chaharmahal & Bakhtiari	1,177	390	133	32	26	190
South Khorasan	836	938	58	10	10	78
Razavi Khorasan	5,996	861	335	126	25	486
North Khorasan	1,702	310	54	11	14	79
Khuzestan	2,295	1,118	185	17	146	349
Zanjan	858	184	48	15	89	152
Semnan	1,317	352	56	25	3	84
Sistan & Baluchestan	973	1,798	17	2	95	114
Fars	3,250	2,523	242	81	85	407
Qazvin	817	118	177	72	106	355
Qom	274	63	55	28	26	110
Kurdistan	1,188	308	47	5	182	234
Kerman	1,226	1,279	79	33	18	131
Kermanshah	1,473	292	127	19	83	228
Kohgiluyeh & Boyer-Ahmad	565	909	34	5	28	67
Golestan	1,406	188	280	27	29	336
Gilan	708	98	96	4	251	351
Lorestan	1,825	798	182	11	54	247
Mazandaran	1,350	108	386	17	269	672
Markazi	1,356	221	219	27	17	263
Hormozgan	170	939	5	4/0	19	25
Hamedan	1,266	108	310	18	51	380
Yazd	398	397	89	50	17	156
South of Kerman	660	823	28	1	55	84
Total	45,622	18,112	4,616	1,202	2,271	8,089

Source: Agricultural Production Report



Livestock Production

Livestock production is categorized into red meat and milk. The total of red meat production reached 829,500 tons with a 0.67% decline, evaluated by distribution of mutton at 265,320 tons, purebred cattle at 80,900 tons, crossbred cattle at 255,980 tons, and native cattle with 126,950 tons, in the year ended March 2019.

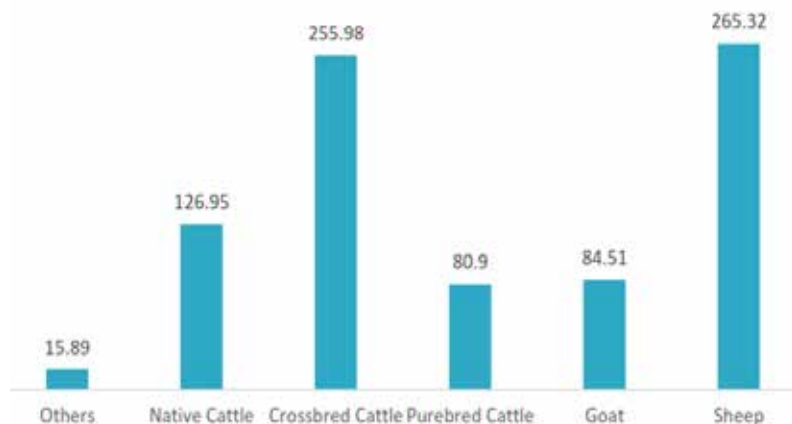
Total milk production reached 10,588.6 with a 3.8% growth which is evaluated by distribution of milk production' categorized into sheep 252,810 tons, goat 296,290 tons, purebred cattle 4,354,710 tons, crossbred cattle 4,920,970 tons, and native cattle 614,120 tons.

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

	Red Meat	Milk
Sheep	265.32	252.81
Goat	84.51	296.29
Purebred Cattle	80.90	4,354.71
Crossbred Cattle	255.98	4,920.97
Native Cattle	126.95	514.12
Others	15.89	149.66
Total	829.55	10,588.56

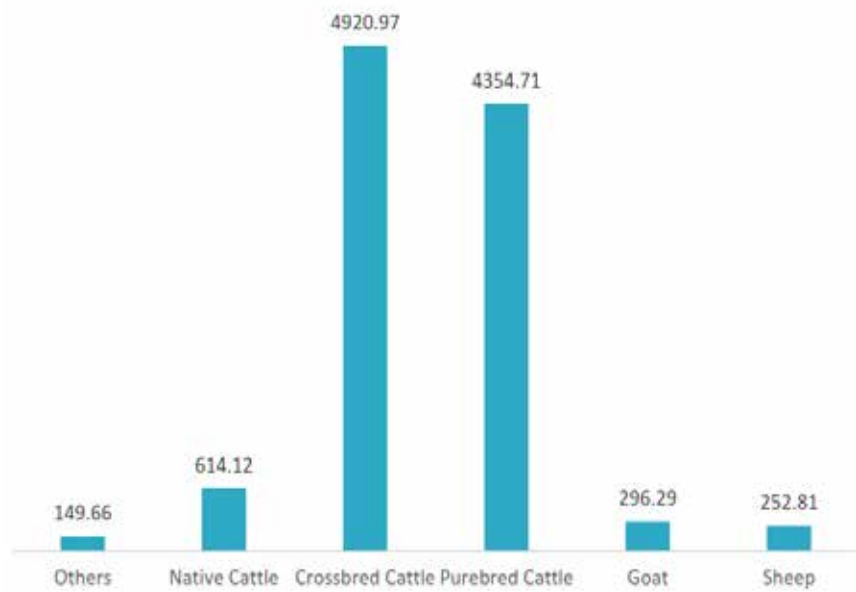
Source: Agricultural Production Report

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



Source: Agricultural Production Report

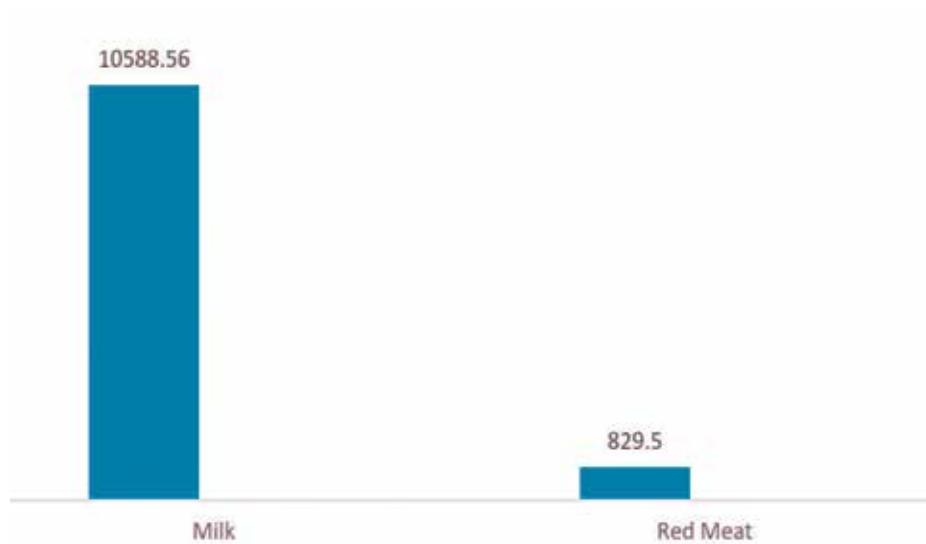
Figure 4-3. Milk Production by Livestock - 000 tons



Source: Agricultural Production Report

Isfahan and Razavi Khorasan took the first ranks of protein products with 71,330 tons of red meat and 1,308,870 tons of milk, respectively.

Figure 4-4. Protein Products by Province -000 tons



Source: Agricultural Production Report

Table 4-3. Protein Products by Province - 000 tons

	Milk	Red meat
East Azerbaijan	535.42	50.53
West Azerbaijan	380.96	46.29
Ardabil	269.39	29.25
Isfahan	1308.87	45.34
Alborz	391.37	10.84
Ilam	89.77	15.11
Bushehr	40.04	7.79
Tehran	1167.28	31.94
Chaharmahal & Bakhtiari	258.75	20.98
South Khorasan	112.74	13.71
Razavi Khorasan	1019.28	71.33
North Khorasan	101.12	15.24
Khuzestan	332.68	41.38
Zanjan	147.58	14.3
Semnan	159.42	13.45
Sistan & Baluchestan	72.88	20.29
Fars	610.54	60.26
Qazvin	548.82	25.78
Qom	137.80	8.32
Kurdistan	117.91	20.95
Kerman	216.97	21.14
Kermanshah	221.91	23.27
Kohgiluyeh & Boyer-Ahmad	74.39	10.91
Golestan	368.84	27.67
Gilan	181.44	24.31
Lorestan	243.42	27.81
Mazandaran	493	46.43
Markazi	290.69	23.21
Hormozgan	25.78	6.74
Hamedan	369.84	28.79
Yazd	244.78	14.03
South of Kerman	54.88	12.24
Total	10,588.56	829.5

Source: Agricultural Production Report

In the year ended March 2018, Iran held the world 22nd, 26th and 23th ranks in meat, red meat and milk production, respectively.

Table 4-4. Ranking in Agricultural Products

	Rank
Meat	22
Red Meat	26
Milk	23

Source: FAO

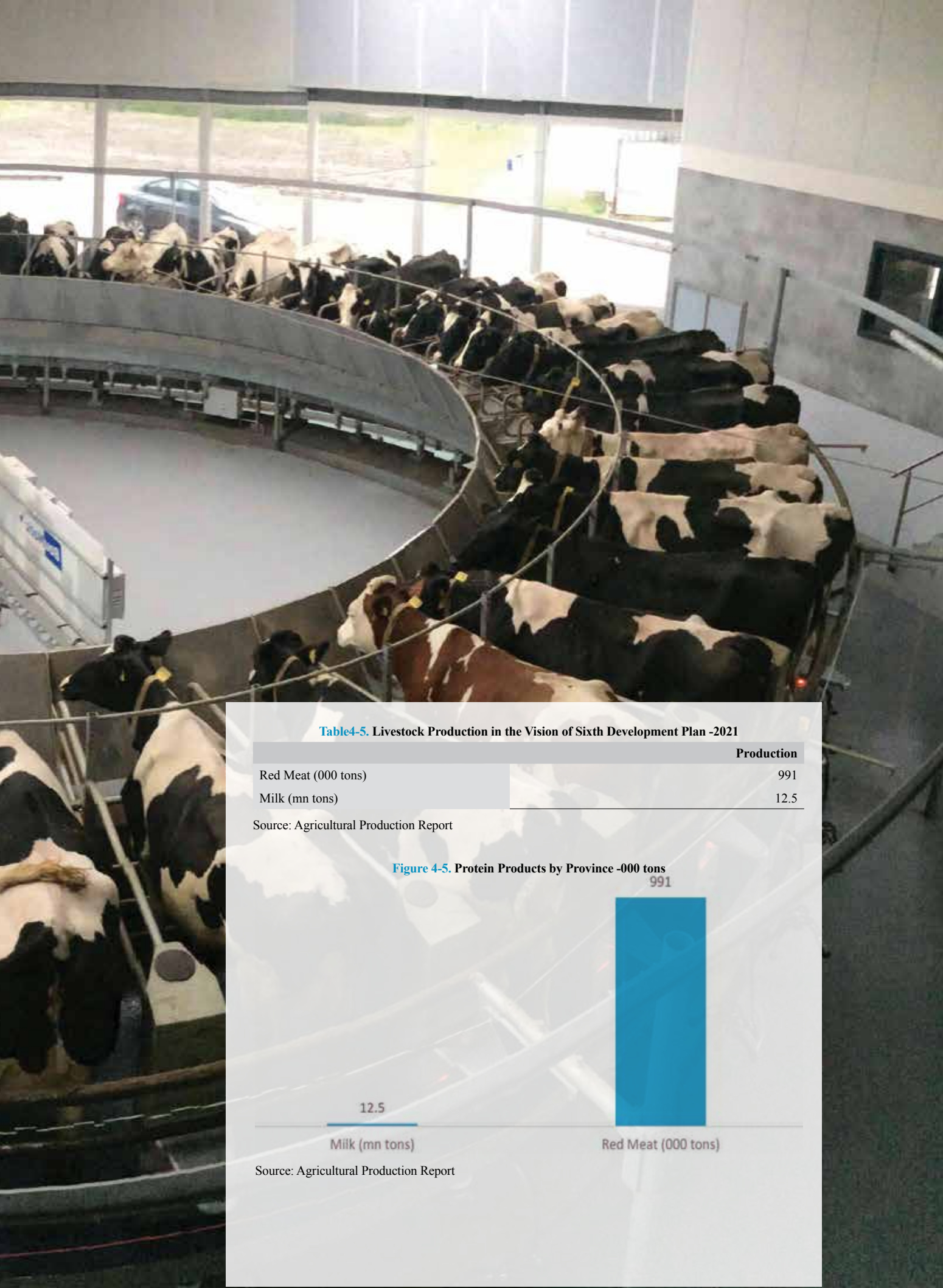
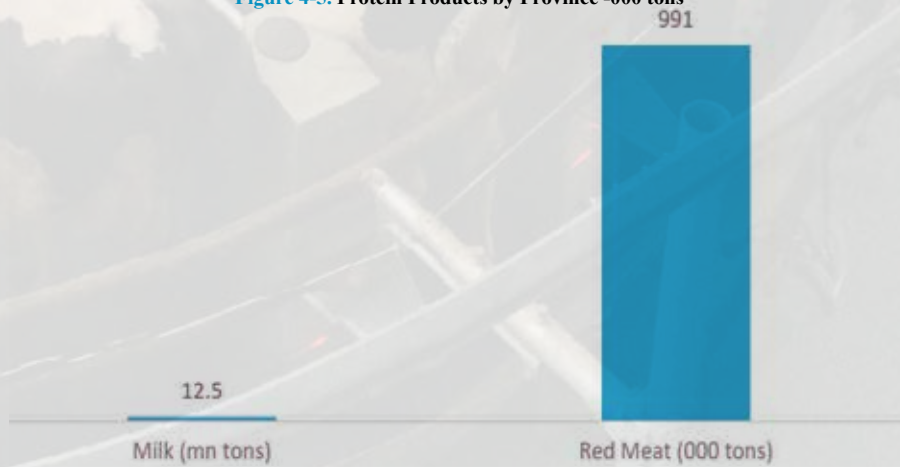


Table4-5. Livestock Production in the Vision of Sixth Development Plan -2021

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

Source: Agricultural Production Report

Figure 4-5. Protein Products by Province -000 tons



Source: Agricultural Production Report

Products Consumption Per Capita

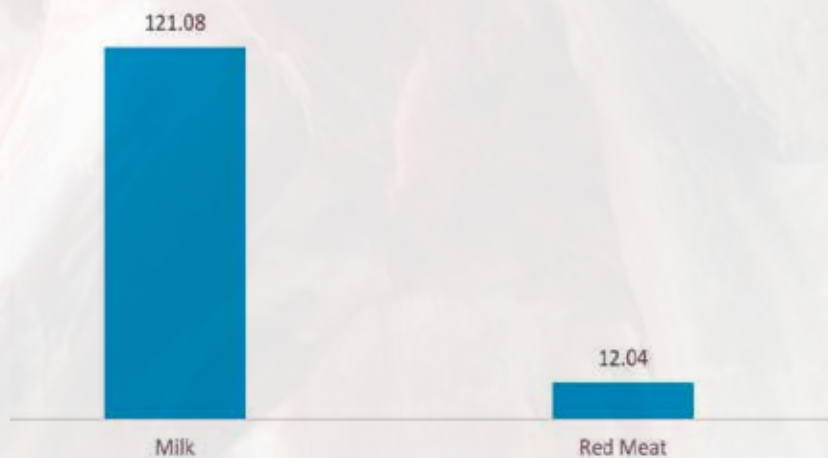
Total of livestock product consumption per capita was 133.12 Kilograms and the consumption of red meat reached 12.04 Kilograms with 0.6% decrease and milk was 121.08 Kilograms with an increase of 5.4% in the year ended March 2019.

Table 4-6. Livestock Consumption -Kg

	Consumption
Red Meat	12.04
Milk	121.08
Total	133.12

Source: Agricultural Production Report

Figure 4-6. Livestock Consumption -Kg



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 28.21 Kilograms and 11.08 Kilograms with 4.4% and 0.9% growth, respectively showing the industry’s importance and rankings in the Iranian food supply chain.

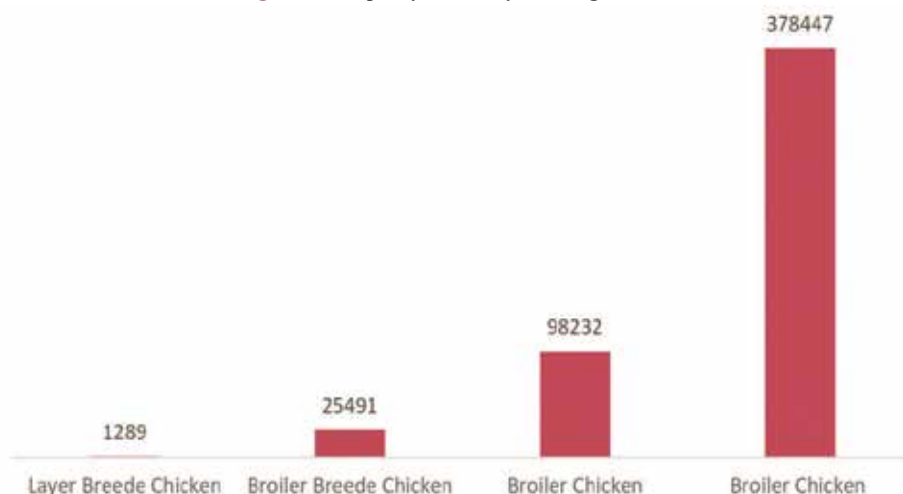
Poultry Farming Capacity

The capacity of 18,459 broiler farms is 378,447,000 chickens, 1,811 farms of which are active in Isfahan with the capacity of 36,590 chickens. In Iran, a total of 1,791 layer chicken farms are active with the capacity of 98,232,000 chickens, of which 293 farms belong to Khorasan Razavi Province with capacity of 11,181,000 chickens. A total of 722 broiler breeder farms are active with the capacity of 25,494,000 chickens, of which 193 farms belong to Mazandaran Province with capacity of 4,723,000 chickens. A Total of 23 layer breeder farms are active with

capacity of 1,289,000 chickens, of which 5 farms belong to East Azarbaijan and Khorasan Razavi Provinces with capacities of 242,000 and 204,000 chickens. Also, 3 farms belong to Qazvin Province with capacity of 304,000 chickens,.

Layer pullet farms are divided in to two categories of independent and dependent pullets, a total of 264 independent pullet farms are active with capacity of 17,570,000 chickens, of which 77 farms belong to Qom Province with the capacity of 3,777,000 chickens. Also, a total of 113 dependent pullet farms have the capacity of 7,200,000 chickens, of which 18 farms belongs to South Khorasan Province with capacity of 668,000 chickens and 9 farms with capacity of 1,273,000 chickens to Qazvin Province.

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



Source: Agricultural Production Report

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

	Layer Breeder Chicken	Broiler Breeder Chicken	Layer Chicken	Broiler Chicken
East Azerbaijan	242	1,737	9,138	9,974
West Azerbaijan	0	2,074	112	15,603
Ardabil	0	1,799	675	6,859
Isfahan	33	692	10,561	36,590
Alborz	104	299	9,095	4,570
Ilam	0	0	160	7,209
Bushehr	0	0	40	6,547
Tehran	0	1,009	13,635	10,843
Chaharmahal & Bakhtiari	0	160	212	4,594
South Khorasan	59	276	1,960	9,730
Razavi Khorasan	204	826	11,181	26,005
North Khorasan	0	0	69	2,249
Khuzestan	0	248	470	14,631
Zanjan	80	811	1,005	654
Semnan	70	266	2,393	9,792
Sistan & Baluchestan	0	47	599	5,846
Fars	0	410	3,900	27,000
Qazvin	304	1,713	8,527	10,525
Qom	60	143	8,943	5,194
Kurdistan	0	435	585	14,698
Kerman	0	466	1,442	7,690
Kermanshah	0	398	1,165	10,229
Kohgiluyeh & Boyer-Ahmad	0	0	160	2,640
Golestan	0	1,965	2,205	27,323
Gilan	99	3,238	90	18,232
Lorestan	0	288	80	12,667
Mazandaran	0	4,723	966	31,208
Markazi	0	785	3,887	11,828
Hormozgan	0	60	10	7,221
Hamedan	35	445	1,623	9,455
Yazd	0	179	2,145	10,511
South of Kerman	0	0	100	330
Total	1,289	25,491	98,232	378,447

Source: Agricultural Production Report

Chicken & Egg Production

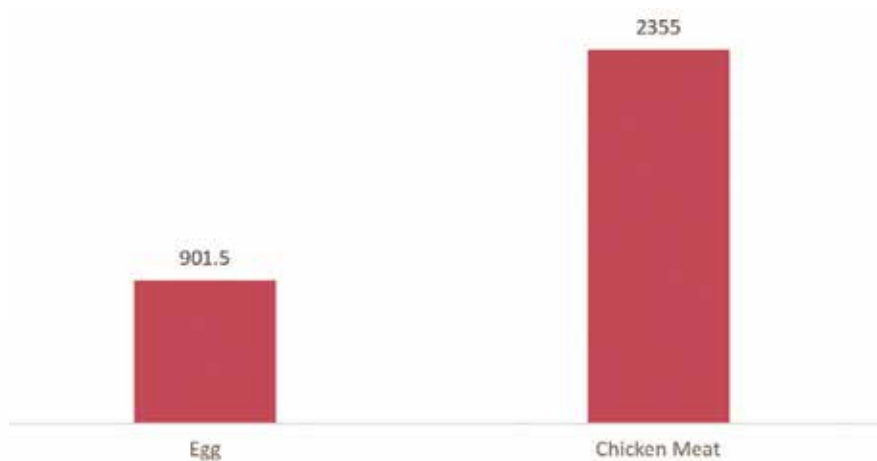
The poultry production industry is divided into two categories of chicken and egg. The total of chicken meat production reached 2,355,000 tons with 5.3 % increase in the year ended March 2019. In addition, the total egg production reached 887,700 tons with 1.5 % increase.

Table 5-2. Chicken Meat & Egg Production-000 tons

	Production
Chicken Meat	2,355
Egg	901.5

Source: Agricultural Production Report

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



Source: Agricultural Production Report



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

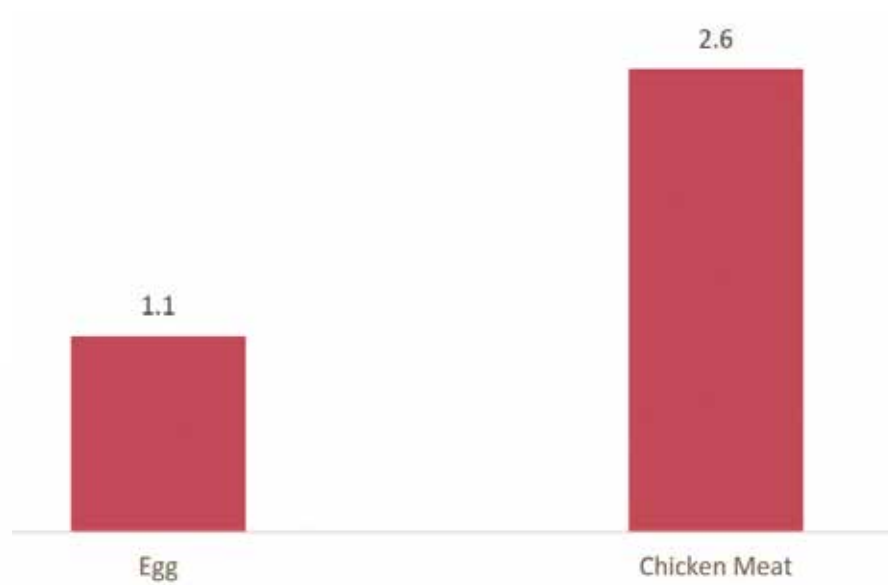
The volume of chicken and egg production, in the vision of sixth development plan, is predicted at 2.6 million tons and 1.1 million tons respectively.

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

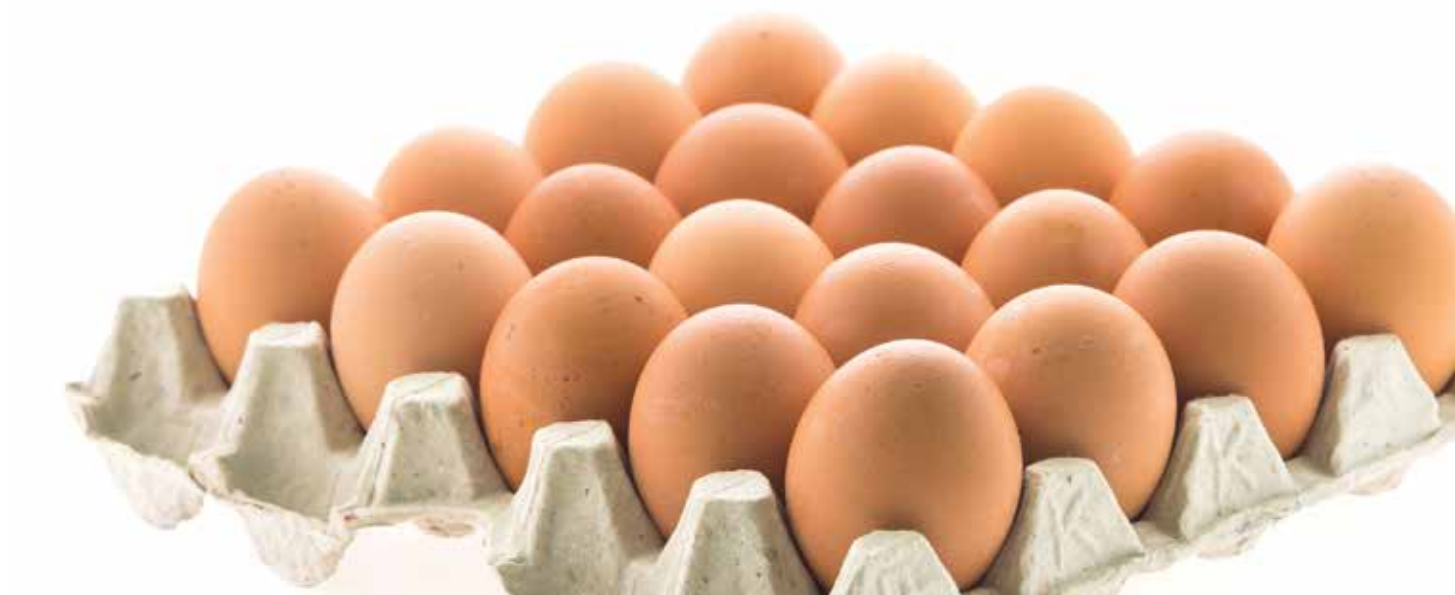
	Production
Chicken meat	2.6
Egg	1.1

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

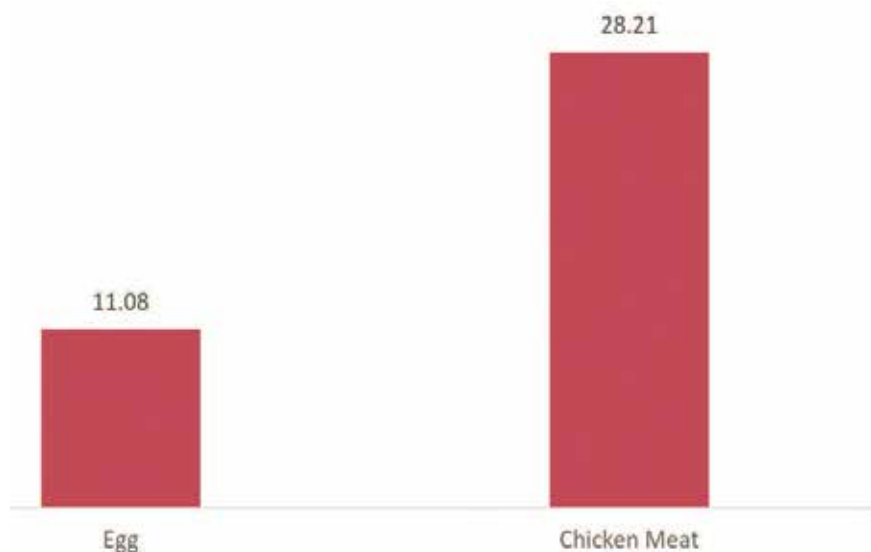
The total chicken and egg consumption per capita reached 28.21 kilograms with a 4.4 % rise and egg consumption per capita reached 11.08 kilograms with a 0.9 % rise in the year ended March 2019.

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

	Consumption
Chicken meat	28.21
Egg	11.08
Total	93.92

Source: Agricultural Production Report

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



Source: Agricultural Production Report

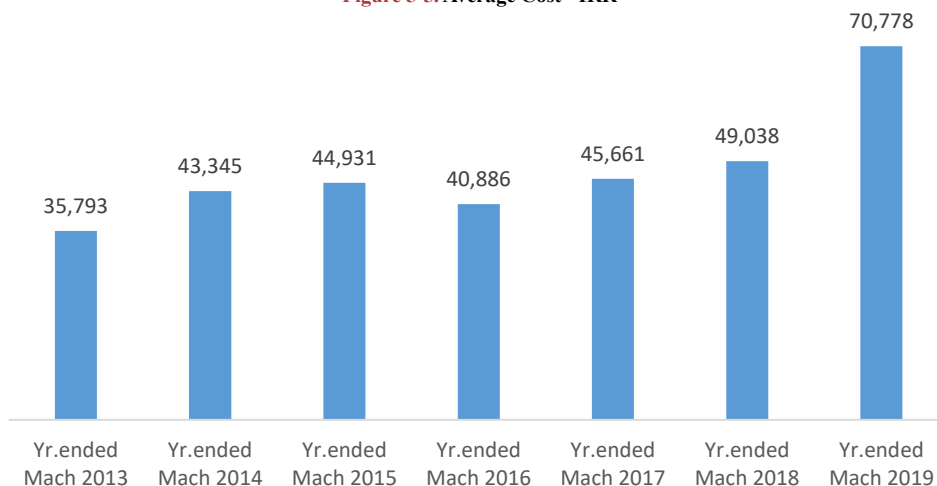




Day-Old Chick

In the year ended March 2019, price of a day-old chick had an 8% decrease in comparison to the previous year and experienced an annual average growth of 15% in the period ended March 2013-2019.

Figure 5-5. Average Cost - IRR

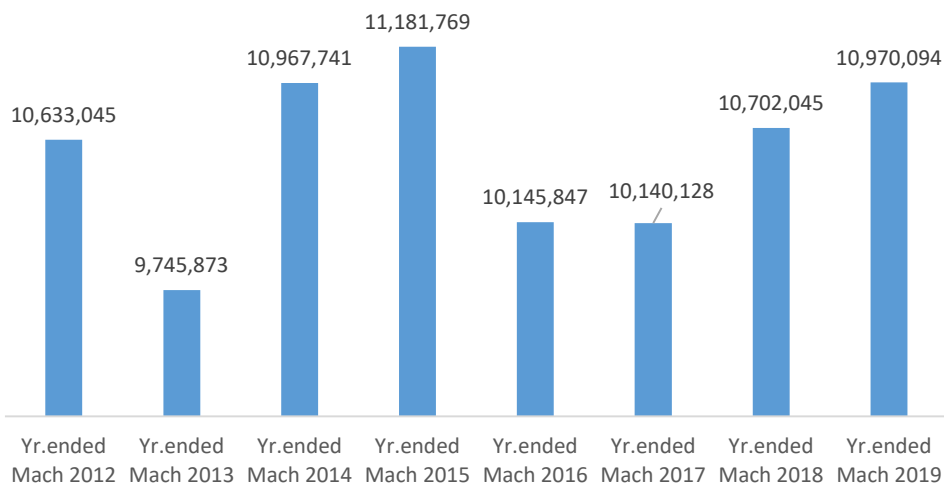


Source: ITP

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: ITP

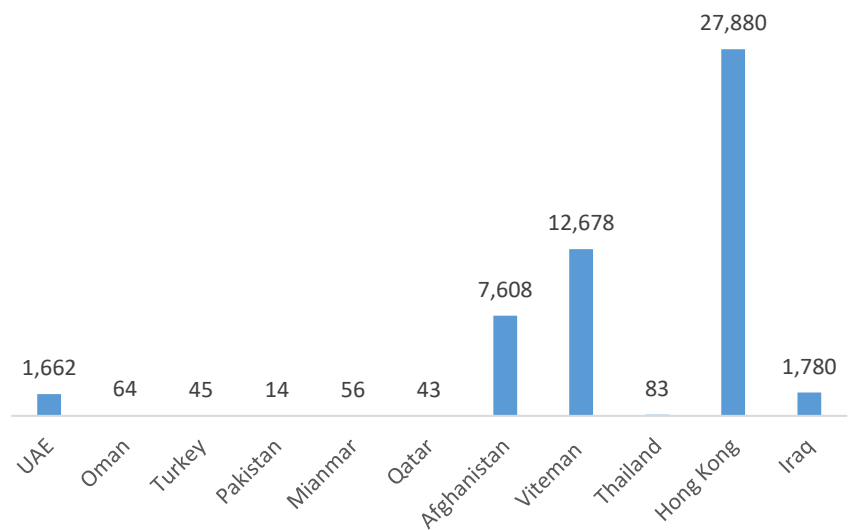
Export

In the year ended March 2018, the predictions for export were 60-70 thousand tons of chicken, but due to disease and domestic demand the figure stood at 500 tons.

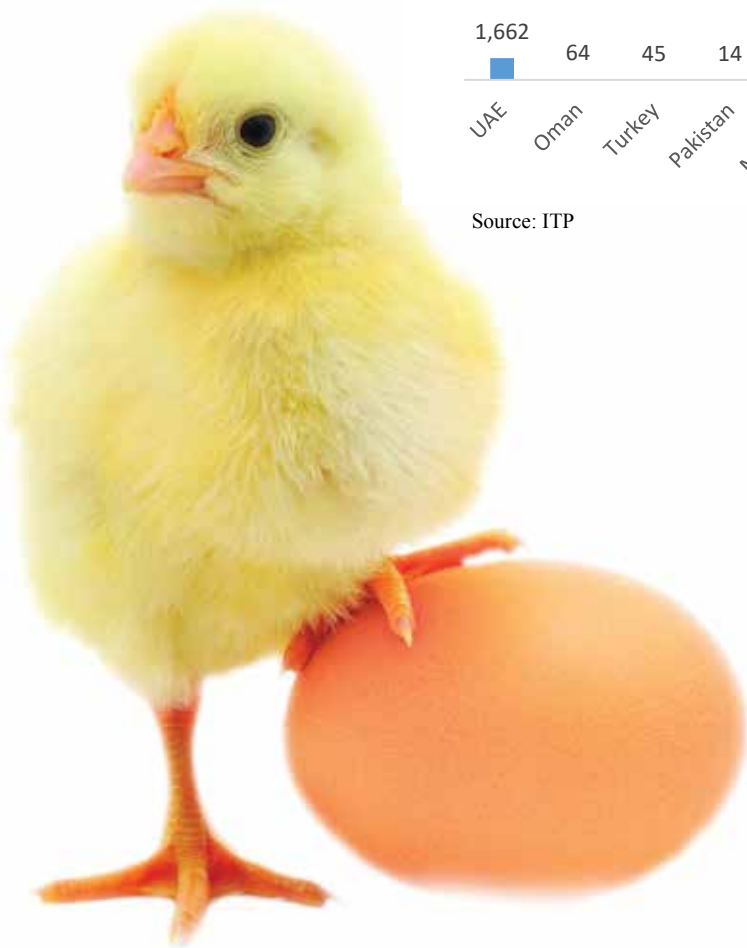
Brooding

In 2018, 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-tons



Source: ITP



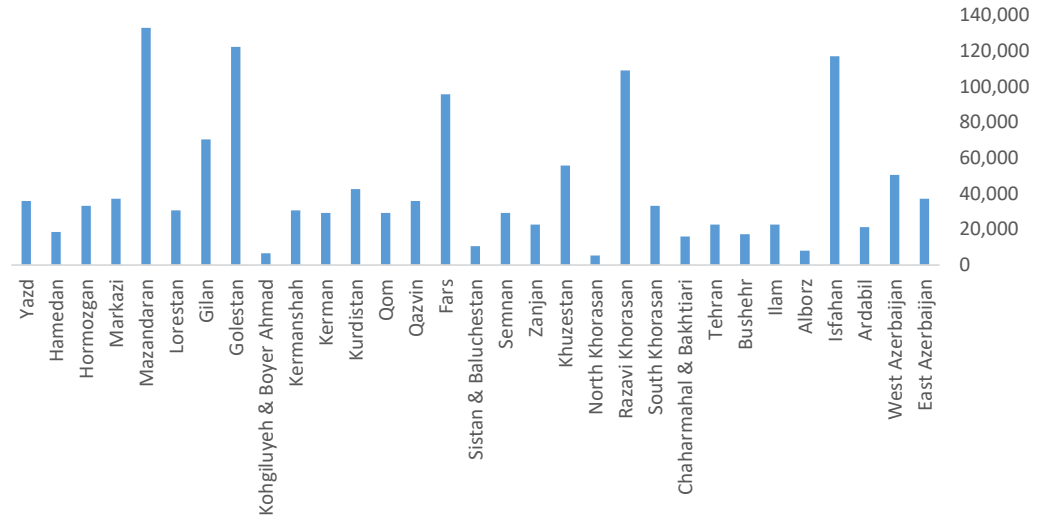
In the year ended March 2019, a total of 1,330,000,000 chicks were bred and Mazandaran province gained the top rank in breeding with 133,000,000 chicks and Golestan, Isfahan, and Razavi Khorasan followed it.

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

Province	000 Chicks
East Azerbaijan	37,240
West Azerbaijan	50,540
Ardabil	21,280
Isfahan	117,040
Alborz	7,980
Ilam	22,610
Bushehr	17,290
Tehran	22,610
Chaharmahal & Bakhtiari	15,960
South Khorasan	33,250
Razavi Khorasan	109,060
North Khorasan	5,320
Khuzestan	55,860
Zanjan	22,610
Semnan	29,260
Sistan & Baluchestan	10,640
Fars	95,760
Qazvin	35,910
Qom	29,260
Kurdistan	42,560
Kerman	29,260
Kermanshah	30,590
Kohgiluyeh & Boyer Ahmad	6,650
Golestan	122,360
Gilan	70,490
Lorestan	30,590
Mazandaran	133,000
Markazi	37,240
Hormozgan	33,250
Hamedan	18,620
Yazd	35,910
Total	1,330,000

Source: ITP

Figure 5-7. Brooding by Province- Yr. ended Mar. 2019



Source: ITP

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.

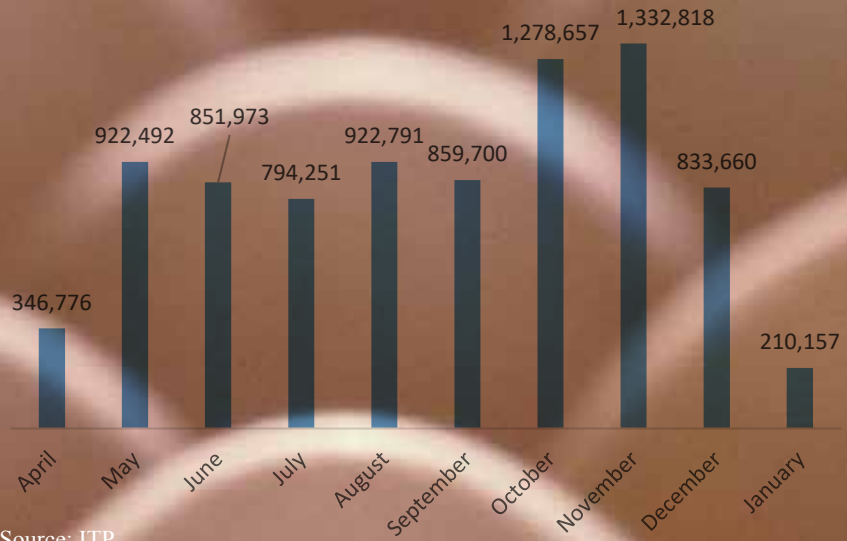


Table 5-6. Value & Volume of Day-Old Chick Export- Apr. 2018 - Jan. 2019

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	922,492	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	1,439,646	69,103
	Turkmenistan	307,470	992,688	47,649
	Sum	859,700	2,816,792	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	30,125
	Total	8,371,275	27,712,649	1,330,207

Source: ITP

Figure 5-7. Value of Day-Old Chick Export by month- USD, Yr. ended Jan. 2019



Source: ITP







FISHERY SECTOR





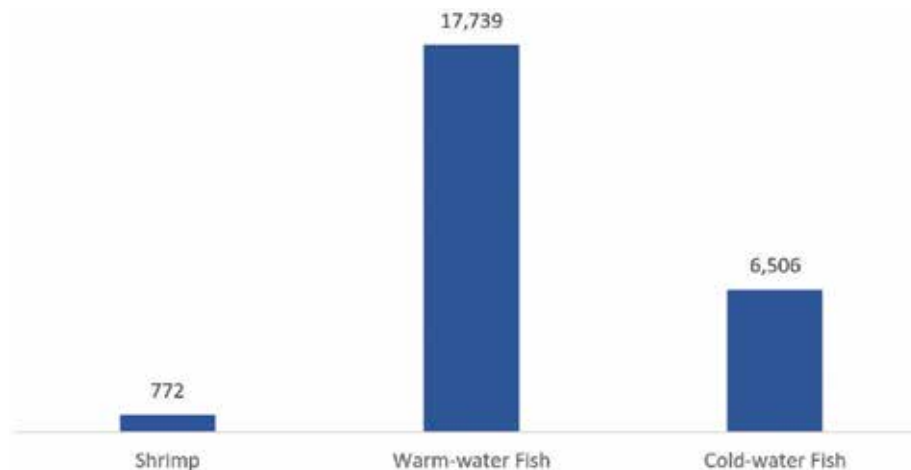
Overview

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.

Shrimp & Fish Farms Status

Warm-water fish farms reached a total of 17,739 (1.1% rise) units with production reduced to 190,238 tons (4.22% reduction) in the year ended March 2018. Cold-water fish farms stood at 6,506 (0.7% reduction) units, the production volume reaching 47,859 tons (0.5% rise). The highest number of warm-water fish farms was 5,373 (an area of 11793.7 hectares) in Gilan Province, 378 cold-water fish farms in Kermanshah Province (220,539 hectares) and 360 shrimp farms (4286.2 hectares) in Hormozgan Province.

Figure 6-1. Fish & Shrimp Farms



Source: Agricultural Production Report


Table 6-1. Fish & Shrimp Farms by Province

	Shrimp	Warm Water Fish	Cold Water Fish
East Azerbaijan	-	232	206
West Azerbaijan	-	32	200
Ardabil	-	191	283
Isfahan	-	733	380
Alborz	-	12	98
Ilam	-	139	80
Bushehr	290	-	-
Tehran	-	280	136
Chaharmahal & Bakhtiari	-	728	403
South Khorasan	-	16	26
Razavi Khorasan	-	1,109	332
North Khorasan	-	85	90
Khuzestan	29	894	17
Zanjan	-	9	686
Semnan	-	200	45
Sistan & Baluchestan	42	806	73
Fars	-	1,306	119
Qazvin	-	84	167
Qom	-	158	62
Kurdistan	-	11	283
Kerman	-	157	212
Kermanshah	-	78	378
Kohgiluyeh & Boyer-Ahmad	-	-	209
Golestan	51	620	93
Gilan	-	5373	356
Lorestan	-	57	391
Mazandaran	-	3192	336
Markazi	-	59	245
Hormozgan	360	6	-
Hamedan	-	597	233
Yazd	-	304	173
South of Kerman	-	271	194
Total	772	17,739	6,506

Source: Agricultural Production Report

Aquaculture Production

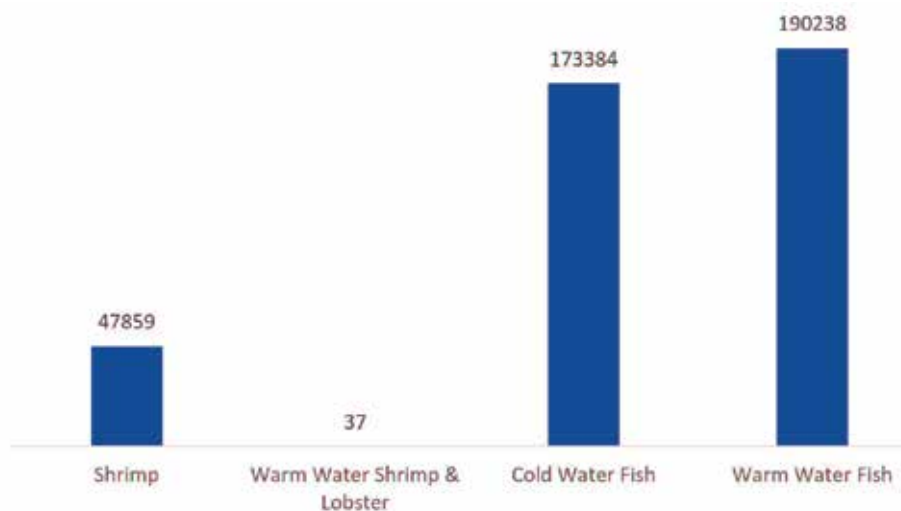
The total amount of fish production was 489,205 tons, including 190,238 tons warm-water fish, 173,384 tons cold-water fish, 37 tons fresh-water shrimps and lobsters, as well as 47,859 tons shrimps in the year ended March 2018. Mazandaran, Lorestan, Kermanshah, and Bushehr ranked 1st with 60,939 tons warm-water fish, 197,60 tons cold-water fish, 25 tons fresh-water shrimps, and 21,000 tons shrimp production, respectively.

Table 6-2. Aquaculture Production-tons

	Production
Warm water fish	190,238
Cold water fish	173,384
Warm water shrimp & lobster	37
Shrimp	47,859
Total	489,205

Source: Agricultural Production Report

Figure 6-2. Aquaculture production-tons



Source: Agricultural Production Report

Fish & Shrimp Production

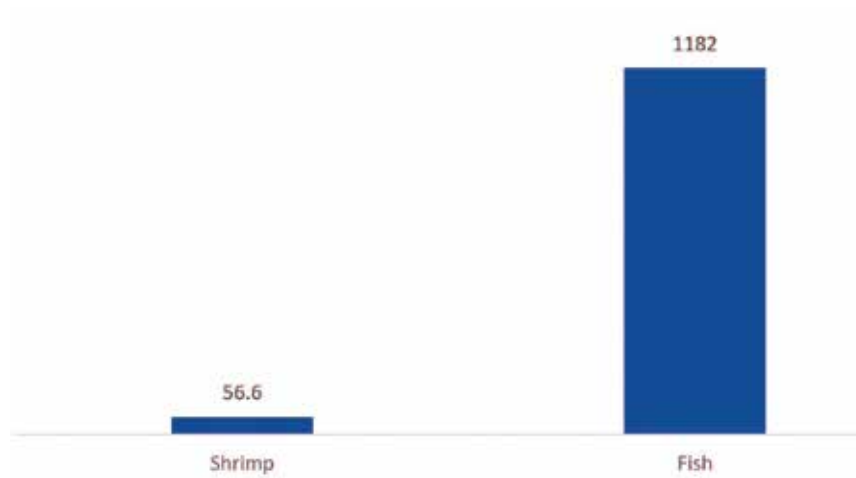
In the year ended March 2019, fish and shrimp production reached 1,182,000 and 56,600 tons with 0.02% and 56.6% growth, respectively.

Table 6-3. Fish & Shrimp Production-000 tons

	Production
Fish	1,182
Shrimp	56.6

Source: Agricultural Production Report

Figure 6-3. Fish & Shrimp Production-000 tons



Source: Agricultural Production Report

Products Consumption Per Capita

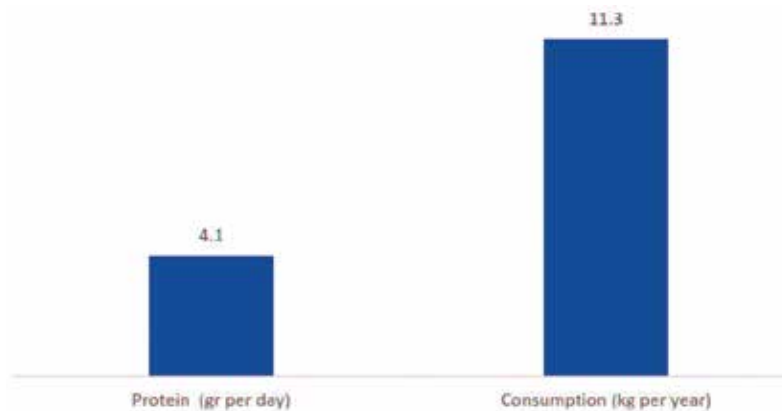
In the year ended March 2019, the total of consumption per capita of aquatic products was 11.3 kilograms (0.06% increase), and aquatic protein consumption increased 6.04 grams per day.

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

	Consumption
Consumption Per Capita (kg p/y)	11.3
Protein (g p/d)	6.04

Source: Agricultural Production

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



Source: Agricultural Production Report





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 2017, 86,882,339 and 147,326,249 inoculations were injected for bacterial and viral diseases, respectively.

Table 7-1. Inoculation-Yr. ended Mar. 2017

Type	Disease	
Cattle, Buffalo, Sheep, Goat	Bacterial (Charbon)	29,201,132
Others	Bacterial (Charbon)	55,985
Odd-toed Ungulate	Bacterial (tetanus)	6,513
Cattle, Calf, Sheep, Goat	Bacterial (blackleg)	908,360
Cattle & Buffalo	Bacterial(theileriosis)	147,755
Cattle, Buffalo, Sheep, Goat	Bacterial(Pasteurellosis)	2,224,978
Others	Bacterial (Pasteurellosis)	0
Cattle, Buffalo, Sheep, Goat	Bacterial (enterotoxaemia)	38,468,120
Sheep & Goat	Bacterial (gangrene)	7,771,198
Sheep & Goat	Bacterial (agalactiae)	8,098,298
Cattle, Buffalo, Sheep, Goat	Bacterial (leptospirosis)	0
Cattle, Buffalo, Sheep, Goat	Virus (HFMD)	61,531,416
Sheep & Goat	Virus (smallpox)	59,326,280
Sheep & Goat	Virus (PPR)	24,231,963
Cattle	Virus (LSD)	2,236,590
Total		234,208,588

Source: Agricultural Statistics

Supervision on Livestock Products

In the year ended March 2017, supervision took place on 2,886,334 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 2017, 1,064,351 cases of Brucellosis were diagnosed in tested livestock, of which 2,451,687 were cattle and calves and 11,653,539 were sheep and goat that were vaccinated by IRIB and ver1 vaccines, respectively. Moreover, 445,206 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, 1,302,755 Tuberculin tests were taken from cattle showing 0.1% of positive coefficient reactors in the year ended March 2017. Additionally, 37,249 livestock were given Mallein tests to eliminate glanders.

Table 7-2. Livestock Disease Control- Yr. ended Mar. 2017

	Type	Disease	
Inoculated Cattle & Calf (IRIB)	-	Brucellosis	2451687
Inoculated Sheep & Goat	-	Brucellosis	11653539
Bovine TB test (negative)	-	Bovine TB	1300702
Bovine TB Test No. Positive Reactor	-		2053
Total Vaccination by Type	Cattle, Sheep, Goat	Rabiesg	8040
Total Vaccination by Type	Others	Rabiesg	446480
Mallein Test	-	Glander	37249

Source: Agricultural Statistics



Livestock Parasitic Diseases Control

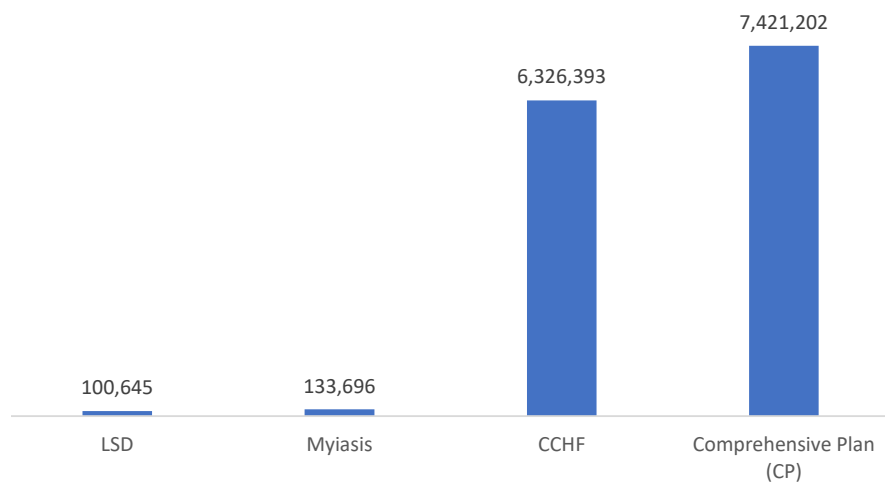
In the year ended March 2017, 13,801,936 livestock located in 57,239,606 m² were poison sprayed to control parasitic disease (cattle, calf, sheep and goat).

Table 7-3. Livestock Parasitic Diseases Control-Yr. ended March 2018

		Type	
Comprehensive Plan (CP)	Cattle, Buffalo, Sheep, Goat		7,421,202
CCHF	Cattle, Buffalo, Sheep, Goat		6,326,393
Myiasis	Cattle, Buffalo, Sheep, Goat		133,696
LSD	Cattle, Buffalo, Sheep, Goat		100,645
Total	-		13,801,936

Source: Agricultural Statistic Data

Figure 7-1. Livestock Parasitic Diseases Control-Yr. ended March 2018



Source: Agricultural Statistics Data

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 10.38, 10.30, 19.40, and 12.65, respectively.

Table 7-4. Broiler Pullet Disease Status

	IBD	Newcastle	Bronchitis IBV	Influenza
Broiler Pullet Stroke Disease in Flock (no)	520,770	8,425,521	15,701,430	5,304,467
Broiler Pullet Stroke Disease in Flock (%)	12.65	19.40	10.30	10.38

Source: Agricultural Production Report

Aquaculture & Fish Farms Hygiene Status

In the year ended March 2017, 129,066 tests were conducted at aquaculture and fish farms divided into cold-water fish farms 99,576 tests, warm water fish farms 6,729 tests and shrimp farms 15,185 tests. Furthermore, 7,576 tests were given to other aquatic animals such as ornamental, sturgeon, and sea animals.

Table 7-5. Aquaculture & Fish Farms Hygiene Status

Type	Tests	Total Tests by Division			
		Fungal	Parasitic	Microbial	Virus
Cold Water Fish Farms	99,576	661	2793	5,992	90,130
Warm Water Fish Farms	6,729	334	3596	1,262	1,537
Shrimp Farms	15,185	1	32	799	14,353
Others	7,576	413	3598	2,017	1,548
Total	129,066	1,409	10,019	10,070	107,568

Source: Agricultural Statistics Data

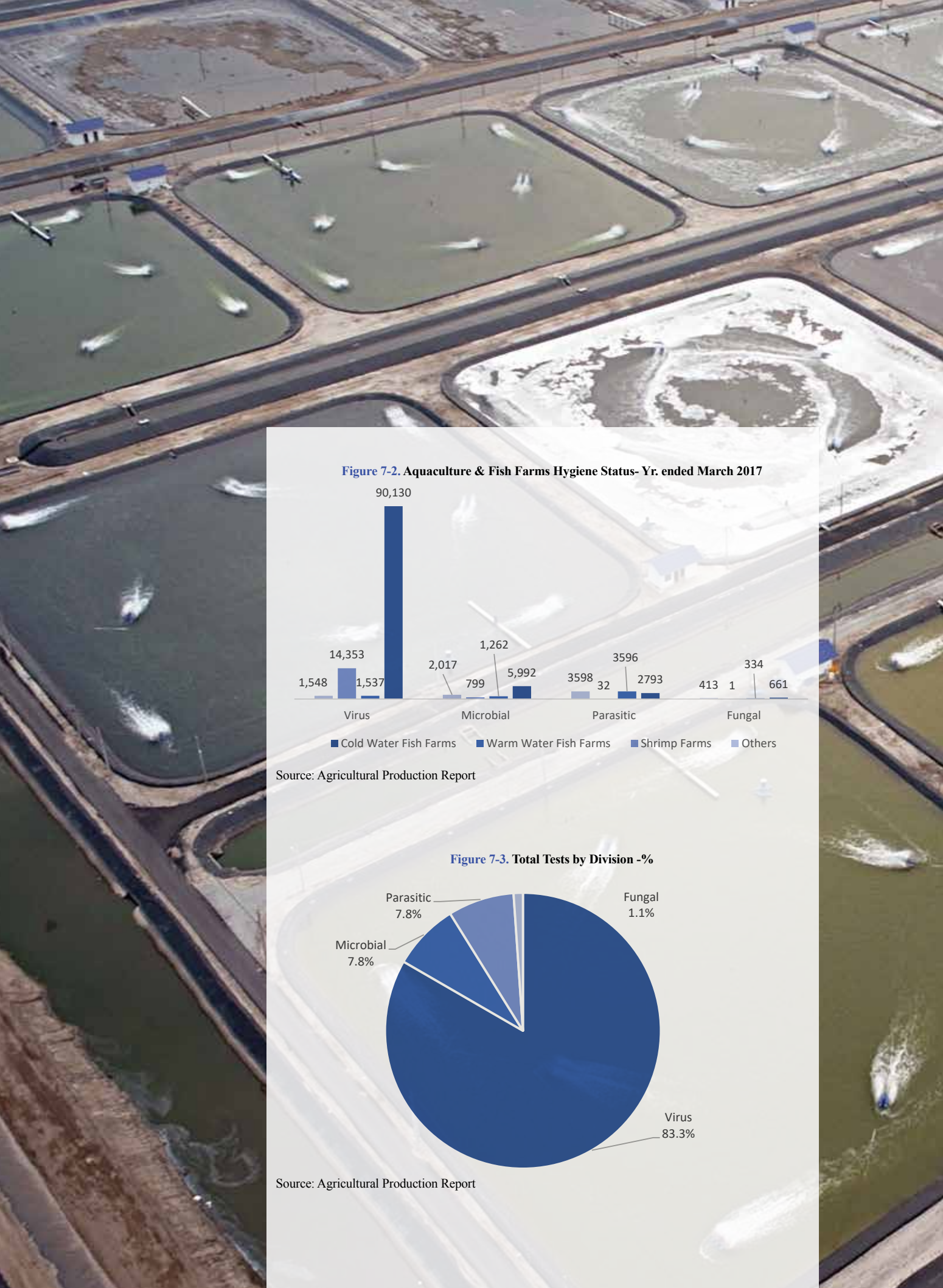
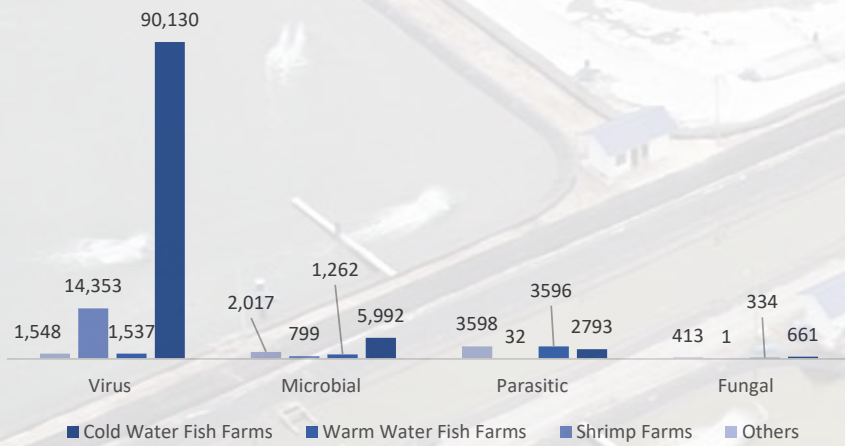
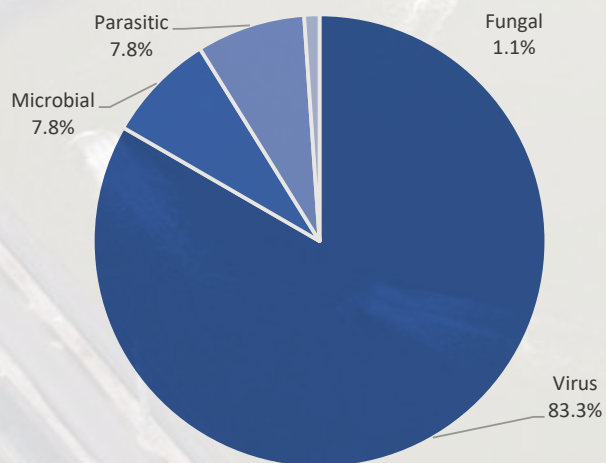


Figure 7-2. Aquaculture & Fish Farms Hygiene Status- Yr. ended March 2017



Source: Agricultural Production Report

Figure 7-3. Total Tests by Division -%



Source: Agricultural Production Report







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.







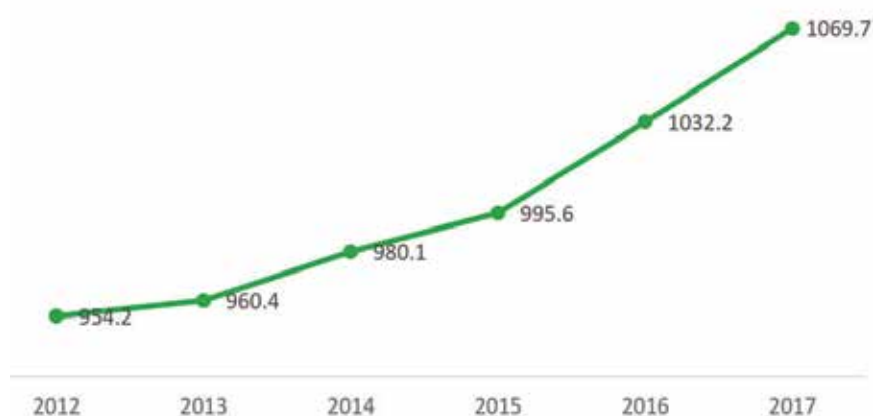
ANIMAL FEED INDUSTRY IN THE WORLD



Animal Feed Industry in the World

In 2016, world compound feed production reached an estimated one billion tons annually. Global commercial feeds generated an estimated annual turnover of 400 billion USD. The production growth in 2017 was 2.57%. Over the last five years, the feed industry has had a total growth of 13%, average growth rate of 2.49% per annum. This substantial and healthy growth has been due to higher consumption of meat, milk and eggs, which is reflected in the increased feed production of pig and broiler industries, as well as the dairy industry. The feed mill units increased to 5% from 2016 to 2017, allowing smaller, private feed mills, particularly in European countries like Ireland, Ukraine and the Czech Republic to be included because of their growth rate and significant contribution to animal feed production.

Figure 9-1. Production Tonnage -2012-2017



Source: Alltech Global Feed Survey 2018

Table 9-1. Species Growth -2017

Region	Dairy	Beef	Layer	Broiler
Africa	10%	-15%	11%	10%
Asia-Pacific	2%	-6%	-3%	1%
Europe	2%	3%	3%	7%
Latin America	4%	-9%	3%	2%
Middle East	4%	5%	-5%	1%
North America	1%	4%	4%	2%
Total	3%	-1%	3%	3%

Source: Alltech Global Feed Survey 2018 & Alltech Global Feed Survey 2017

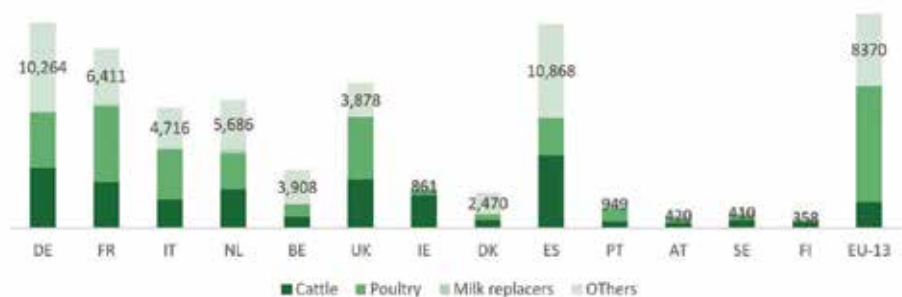
Europe & EU-28



Animal feed, including feed materials and compound feeds, are the main input in livestock production. Within the EU-28, about 489 million tons of feed is consumed by livestock each year, where 254 million tons of feed including cereals was grown and used on farms of origin (53 million tons) as well as purchased by livestock producers to supplement their feed resources (feed materials or compound feed).

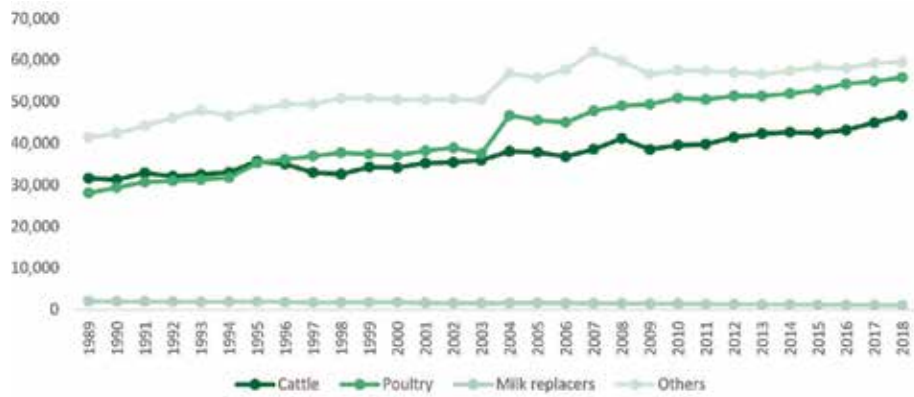
In 2017, 160.1 million tons of compound feed was produced by EU farms (80% of all purchased feed). The value of all feed used by EU livestock producers, including forage produced on farms, is estimated at 89 billion Euros in 2017, which accounts for 37% of all inputs and 50% of the turnover in livestock production.

Figure 9-2. Industrial Compound Feed Production in Europe (2018)



Source: fefac.eu

Figure 9-3. Industrial Compound Feed Production EU-28 -1989-2018



Source: fefac.eu

Latin America



Brazil continues to be a dominant player in the Latin America region and is a leader in the dairy and layer industries.

Table 9-2. South American Animal Food Products – Production -000 tons –2016

Meat & Milk	S. AMERICA	REST	WORLD	Percentage (%)
Cattle	15.3	52.998	68.28	22%
Poultry & Broiler	20.5	96.729	117.217	17%
Milk & Prod	64.6	729.126	793.7	8%
Others	8.217	183.95	192.167	4%
Total	108.5	1,062.8	1,171.3	9%

Source: FAO-2017

Figure 9-4. South American Animal Food Products Vs. the rest of the world -000 tons – 2016



Source: FAO-2017



North America



The North America animal feed market was 88.176 billion USD in 2018. The industry is estimated to register a CAGR of over 2.67%, during the forecast period.

Middle East



Diets in the MENA region are dominated by vegetal foods. The outlook projects that animal foods will increase in share, because of higher meat, fish and dairy product consumption, but the transition will be slow. It is estimated that 89% of calories in the region will still stem from vegetal sources by 2027. The countries of the Persian Gulf region consume the highest share of animal foods at 15%. Second are the LDCs (Least developed country) at 12%, as a result of their large animal husbandry sectors, while the countries of North Africa and Other Western Asia only reach about 10% by 2027.

The Middle East saw the most significant growth of any region at over 16%. The survey extended its reach into this region somewhat and therefore was able to procure more robust numbers.

In aquaculture feed, Iran stood out from the pack in accounting for almost all of the reported growth in the Middle East.

Asia-Pacific



Asia-Pacific animal feed additive market stood at 4.9 billion USD in 2017 and is projected to reach 6.3 billion USD by 2023, predominantly on account of increasing production of livestock across the region. Moreover, rapid urbanization, increasing preference for processed food and growing consumption of poultry and pork as sources of protein are among the key factors that are expected to boost demand for animal feed and feed additives across the Asia-Pacific region during the forecast period.





Fastest Growing Regions

Europe and Asia-Pacific tied for the title of the fastest-growing region, each at a 3% increase over 2016. 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 9-3. Animal Feed Production in the World -MMT

Region	2012	2017	% Change
Africa	30.3	39.1	29%
Asia-Pacific	356.5	381.1	7%
Europe	208.4	267.1	28%
Latine America	137	160.7	17%
Middle East	25.4	27	6%
North America	188.1	194.6	3%
Total	945.8	1,069.7	13%

Source: Alltech Global Feed Survey -2018

Figure 9-5. Animal Feed Production in the World -2012 vs. 2017



Source: Alltech Global Feed Survey -2018

Leadership in Animal Feed Production

The top 7 countries can be viewed as a leader of the trends in agriculture. In 2017, 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 9-4. Leadership Animal Feed Production in the World

Country	2016		2017	
	Mills (No.)	Production (MMT)	Mills (No.)	Production (MMT)
China	6,000	187.2	6,000	186.9
USA	5,970	169.69	6,241	173
Brazil	1,554	68.93	1,572	69.9
Russia	500	29.09	569	37.6
Mexico	498	33.88	501	34.4
India	909	31.36	1,201	34.2
Spain	820	31.85	845	33

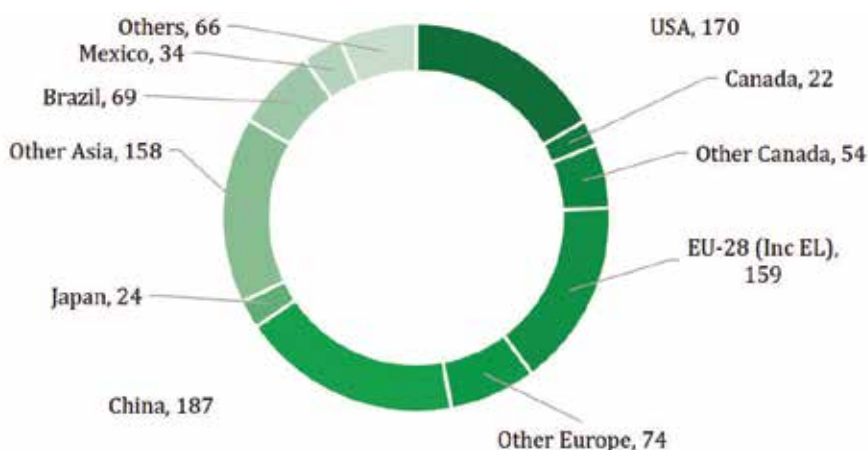
Source: Alltech Global Feed Survey -2018

In 2017, comparing the production of these top countries as a percentage of aggregate feed production from the rest of the world shows of the total, 61% Pigs, 45% Dairy, 51% Beef, 47% Layer, 58% Broiler and 53% 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 9-5. Global Compound Feed Production

Source: IFIF Annual Report (2016-2017)

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.

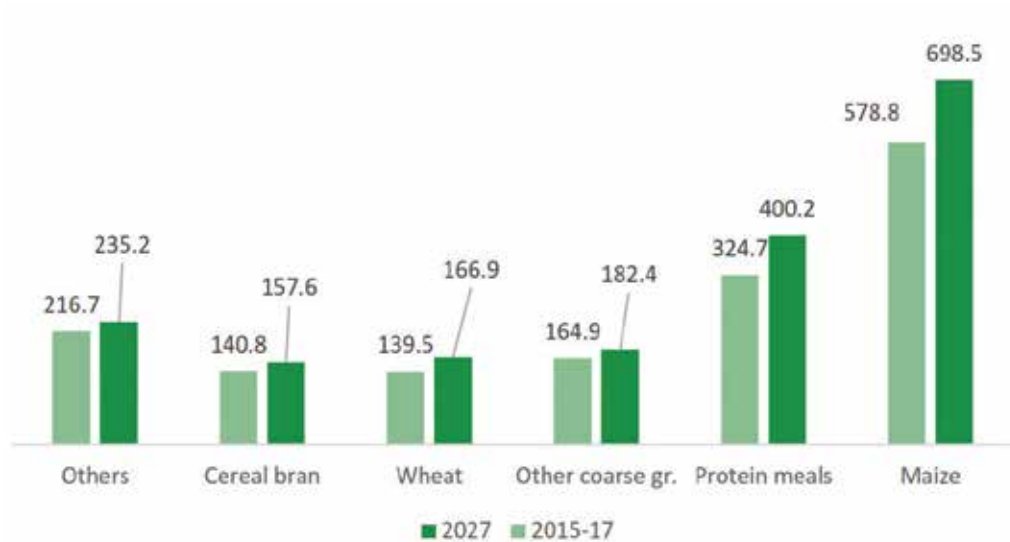
The global demand for feed reached 1.6 billion tons in 2015-2017, and is expected to increase further to 1.9 billion tons by 2027, at an annual growth rate of around 1.7%. Demand for feed is thus expected to grow faster than the demand for several commodities and markedly faster than food demand for 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.

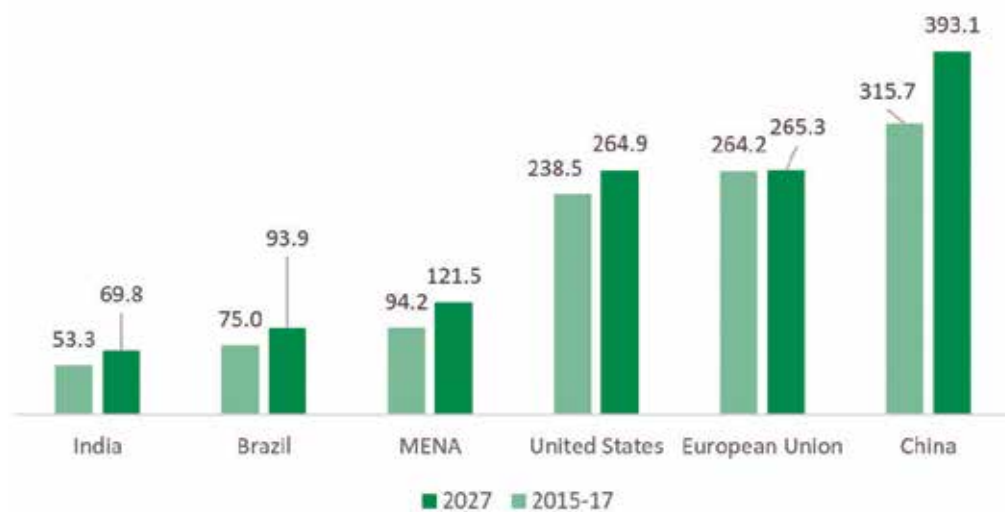


Figure 9-6. Demand for Feed

(a) By feed component - million tons



(b) By region - million tons



Note: MENA stands for the Middle East and North Africa
 Source: OECD/FAO-2018, "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (Database)

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

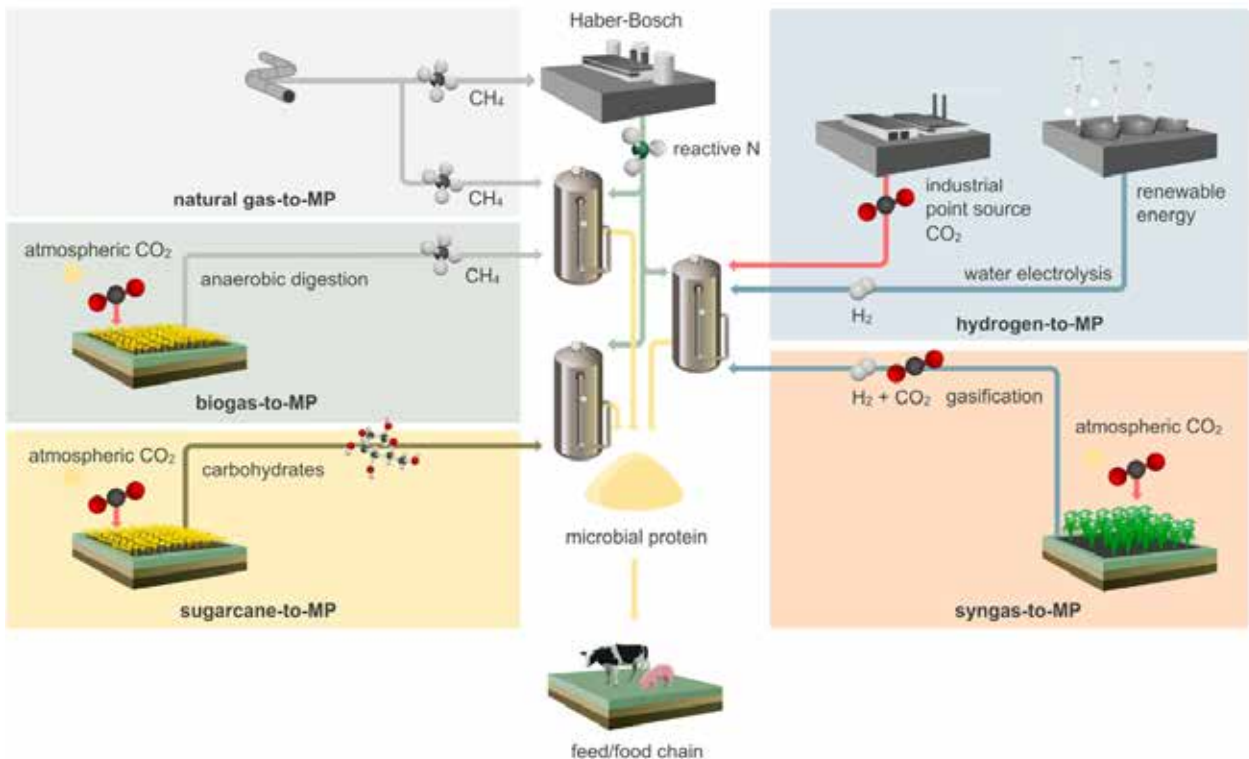
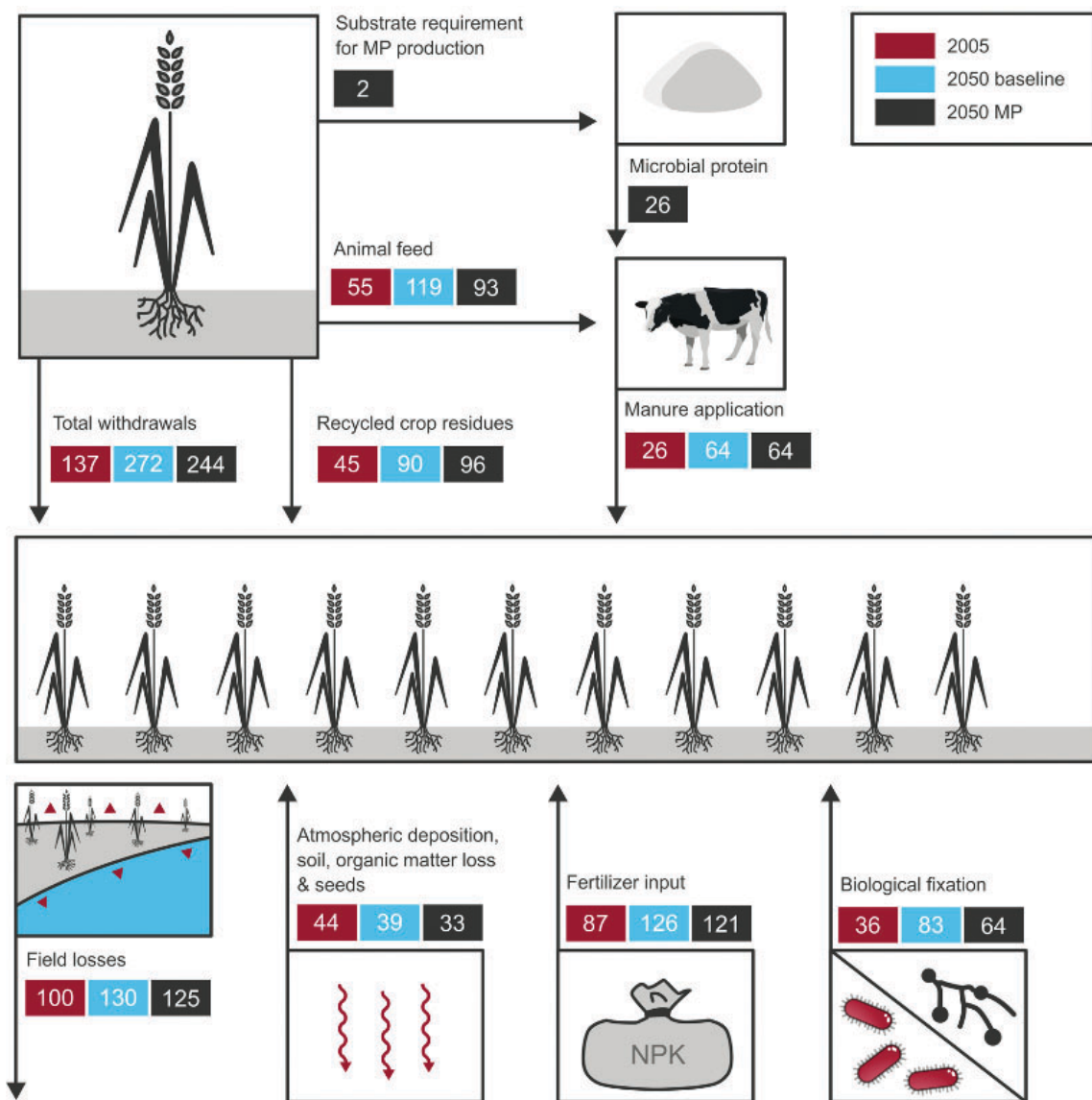


Figure 9-8. Global Agricultural Reactive Nitrogen Flow Flows by the year 2020



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.

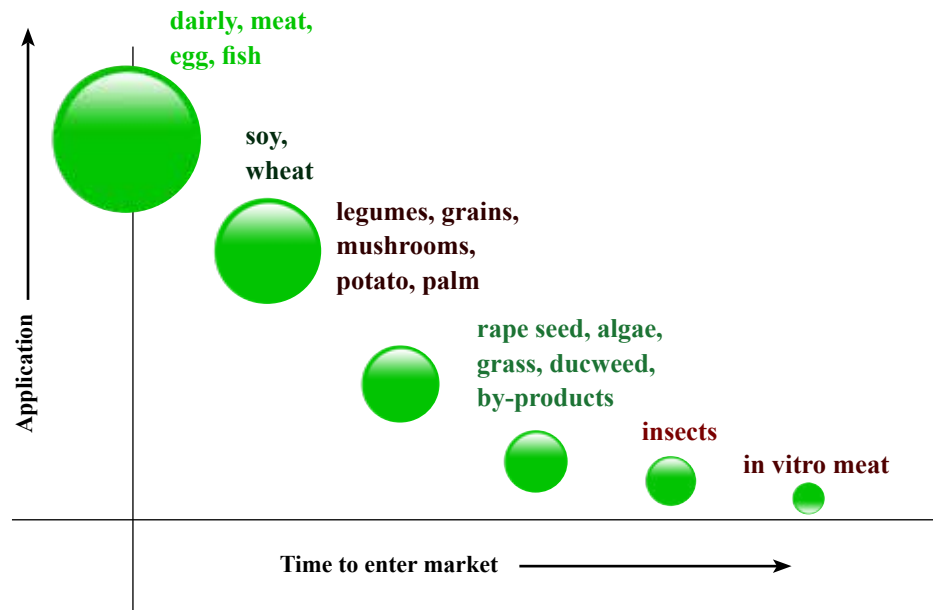
◆ Insect: Protein Feed for the Future

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

Application	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	
a) Antimicrobials	<ul style="list-style-type: none"> - To suppress the growth of harmful bacteria and promote the establishment of a desirable gut flora balance (e.g. antibiotics). - To increase dietary supply of specific amino acid and improve protein balance in diet formulations.
b) Crystalline Amino Acids	<ul style="list-style-type: none"> - 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	
a) Probiotics	<ul style="list-style-type: none"> - To promote the establishment of a desirable gut ecosystem through the proliferation of beneficial species (e.g. direct-fed microbial). - 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - To introduce new species or strains of microorganisms into the gut.
Bioactive Peptides	<ul style="list-style-type: none"> - Improved growth and efficiency (e.g. growth hormone-releasing peptides), improved gut function, immunomodulation, antibacterial properties.
Antimicrobial Replacers	<ul style="list-style-type: none"> - Antimicrobial enzymes (e.g. lysozyme), delivery of specific antibodies via spray-dried plasma and egg products.
Transgenesis	<ul style="list-style-type: none"> - 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 2018 grew to 24.8 billion USD from 23.9 billion USD (2017).

◆ **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 Nutrition & Health segment was 696 million Euros in 2018.

◆ **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 2,000 employees, with manufacturing facilities in eight countries doing business in 90 countries, with international headquarters in Des Moines with an annual revenue of 520 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 19 mn. tons of animal feed annually, and, 6.8 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 2018. The total production of animal feed was 9,896,000 tons, about 5,645,000 tons of which is allocated to livestock, 3,960,000 tons to poultry, and 291,000 tons as fish. In other words, except for 2% imported animal ready-made 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 645 feed mills, 462 are active, 29.22% of the managers have 5-10 years of experience, 21.42% have below 5 years of experience, 37.22% of the managers have bachelor degrees, 16.45% have master's degrees, and 6.49% have high school diplomas.

Among active animal feed mills, 157 were established during the years ended March 2011-2016 and 14 started operating during the years ended March 1962-1980. In the last two years, 43 mills have been added to the total number of Iran's animal feed mills, 39 of which have IR Code and 63 are receiving the code. Among the Animal feed production units 152 are livestock and poultry, 23 fish, 104 livestock, 109 poultry, 3 livestock and fish, and 5 poultry and fish.

About 99 mills produce flour (Mesh), 8 units are extruders, 152 produce pellet, 153 manufacture flour (Mesh) and pellet. Approximately, 59 animal feed mills cooperate with foreign partners (i.e. more than 87% of the mills have no international contacts). Regarding export, 51 mills have experienced exporting of a variety of animal feed (i.e. 88% are not export-oriented). Also, 19 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 8,155 male and 967 female employees. The number of vets, nutritionists, technical experts, are 399, 492 and 1,011, respectively.

In the last 5 years, 74.68% of the animal feed mills upgraded their equipment, 40.28% and 28.35% of which hold domestic and foreign equipment, respectively, also, 28.75% both domestic and foreign machinery.

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 59.87% 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.

Establishment Permit for Animal Feed Units

In the year ended March 2018, about 1,049 establishment permits 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. . Establishment Permits, Capital, Employment Opportunities & Capacities of Animal Feed Mills
Yr. ended Mar. 2018**

Province	License for Establishment	Capacity	Occupation	Capital
	No.	(000 tons)	PP	(mn USD)
East Azerbaijan	117	1,872	1,698	47.8
West Azerbaijan	23	408	464	18.2
Ardabil	7	136	46	2.2
Isfahan	36	386	467	13.2
Alborz	15	268.2	386	16.0
Ilam	19	175.8	195	5.1
Bushehr	31	230	456	12.4
Tehran	25	370.3	368	5.2
Chaharmahal & Bakhtiari	30	453	547	10.8
South Khorasan	9	74.3	109	2.9
Razavi Khorasan	18	703	361	18.3
North Khorasan	29	819	615	6.4
Khuzestan	85	1,515	1,532	35.5
Zanjan	5	75.9	67	2.6
Semnan	11	266.3	179	7.5
Sistan & Baluchestan	29	388	508	146.2
Fars	123	1,516.9	1,328	29.2
Qazvin	31	723.9	544	13.6
Qom	10	258	147	6.8
Kurdistan	23	512.5	352	15.7
Kerman	68	1,159	826	23.0
Kermanshah	14	356	206	5.1
Kohgiluyeh & Boyer-Ahmad	11	235.2	151	9.4
Golestan	64	896.8	829	40.6
Gilan	9	161.3	167	5.1
Lorestan	52	478	555	8.9
Mazandaran	39	1,284	779	22.9
Markazi	7	115	100	7.7
Hormozgan	14	157	237	6.6
Hamedan	3	113	50	1.3
Yazd	84	527.6	1,017	21.5
South of Kerman Province	8	120.5	118	1.8
Total	1,049	16,755.5	15,404	570.0

Source: Agricultural Statistics Data

Animal Feed Units

In the year ended March 2018, a total of 471 animal feed mills were active with 210.4 million USD capital, 7,458 employment opportunities and capacities of 10,475.5 thousand tons. Razavi Khorasan province had the majority of animal feed producers with 55 mills, 31.9 million USD of capital, 1,149 employment opportunities and capacities of 2,487,000 tons.

Table 10-2. Capital, Employment Opportunities & Capacities of Animal Feed Mills by Province -Yr. ended Mar. 2018

Province	Animal Feed Mills	Capacity	Occupation	Capital
	No.	(000 tons)	PP	(mn USD)
East Azerbaijan	12	321.2	176	4.4
West Azerbaijan	10	181	191	3.9
Ardabil	11	234.5	121	3.6
Isfahan	25	325	368	8.6
Alborz	8	92.5	111	3.1
Ilam	13	91.8	119	1.5
Bushehr	3	80	88	1.1
Tehran	16	218	338	23.9
Chaharmahal & Bakhtiari	6	155	168	2.3
South Khorasan	1	10	10	0.2
Razavi Khorasan	55	2487	1149	31.9
North Khorasan	8	204	140	1.3
Khuzestan	13	316	294	7.0
Zanjan	4	167	45	1.5
Semnan	5	135	68	2.4
Sistan & Baluchestan	5	119	108	1.0
Fars	38	589.8	408	11.3
Qazvin	19	443.4	312	8.9
Qom	11	169	134	1.6
Kurdistan	15	355	226	10.4
Kerman	14	322	188	5.9
Kermanshah	5	121	62	1.8
Kohgiluyeh & Boyer-Ahmad	2	20	25	0.9
Golestan	33	960.9	836	34.2
Gilan	16	255.8	201	2.9
Lorestan	32	322	323	4.7
Mazandaran	31	648	470	9.9
Markazi	27	669	327	7.7
Hormozgan	7	193	122	2.2
Hamedan	6	123	72	1.3
Yazd	20	245.7	258	9.1
Total	471	10,574.6	7,458	210.4

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-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 72,861,000 tons, including hay (73.6%) such as Alfalfa, corn silage, straw, and Concentrate (26.4%) such as corn, soybean meals, barley, etc. in 2016.

Table 10-4. Total Feed Requirement -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: Iran Feed Industry Association

Export of Animal Feed Inputs

In the year ended March 2019, animal feed inputs, including bran, barley, oil seeds, corn, wheat, pressed cake, and chemical products, were exported with weight and value of 271,580 million tons and 106,124.9 thousands USD, a 2.88% increase in weight and 2.25% decrease in value compared to the previous year. The export related to bran was 80,734,100 USD and 208,090 million tons in value and weight, respectively.

Table 10-5. Export of Animal Feed Inputs-Yr. ended Mar. 2019

Subsidiary	Value(000 USD)	Weight (MT)	Change Percent	
			Value	Weight
Bran	80,734.1	208,090.2	10.71%	15.26%
Barley	1,027.7	3,585.9	1484.95%	4549.70%
Oil meal	3,086.8	889.0	-0.14%	-23.62%
Maize	3,200.5	8,034.6	97.62%	163.57%
Other Grain	113.9	127.6	2,670.32%	720.05%
Wheat	17,201.1	49,478.8	-31.24%	-46.46%
Chemical Products	152.8	258.4	104.05%	189.42%
Press Cake	608.2	1,115.6	-35.90%	-45.21%
Total	106,124.9	271,580.1	-2.25%	2.88%

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 10-6. Import of Animal Feed Inputs-Yr. ended Mar. 2019

Subsidiary	Value(000 USD)	Weight (MT)	Change Percent	
			Value	Weight
Bran	53,720.4	51,516.4	-44.88%	-41.97%
Barley	603,441.4	2,650,880.8	16.23%	-0.81%
Oil Meal	1,292,150.4	2,640,630.3	11.38%	9.74%
Corn	2,115,681.8	8,983,078.7	28.76%	22.75%
Other Grain	2,352.0	5,853.9	-77.67%	-77.81%
Wheat	329.1	389.0	-98.36%	-99.46%
Chemical Products	90,633.8	55,682.4	-3.80%	-6.69%
Press Cake	665,875.1	1,483,152.1	24.77%	8.24%
Total	4,824,183.9	15,871,183.6	-15.46%	-11.70%

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 ready-made 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.

Table 10-7. 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 10-8. 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

Export Destinations

During the years ended March 2015 -2018, export of animal feed grew by 13.9% and a significant increase is projected for the future. The target export countries for animal feed are the UAE, Iraq, Turkmenistan, Afghanistan, Azerbaijan, Turkey, Armenia, Tajikistan, Georgia, Kyrgyzstan, Kuwait, Oman, Spain and Uzbekistan. In addition, entry into the markets of countries such as Algeria, Bangladesh, Oman, Afghanistan, Kuwait, Tajikistan, Armenia and other neighboring countries has paved the way to further export.

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 10-9. 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
European Union	Barely, Premix, Minerals, Vitamins, Substitutes for Milk, Supplements
Eastern Europe	Corn, Oil Seed Cake
Australia	Wheat

Source: IFIA



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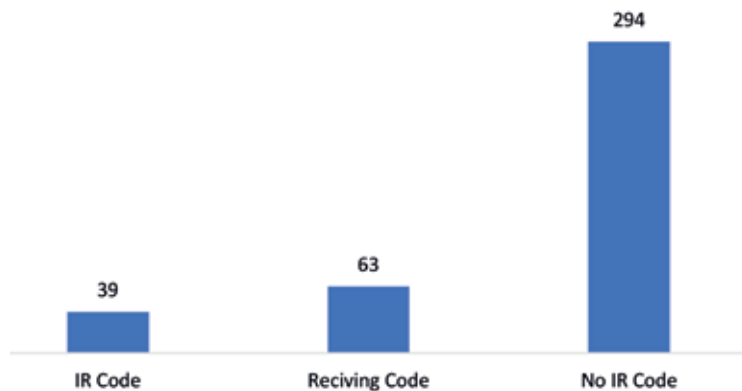


IR Code Animal Feed Mills

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.

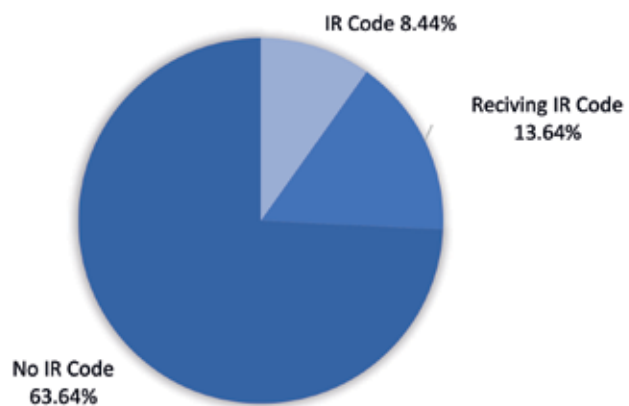
An IR code is issued to animal feed mills that have implemented GMP, HACCP or ISO 22,000 in units, after being officially audited by the Directorate of Supervision Public Health and the appointed management of the veterinary Occupational Health. The sanitary license accelerates the export of animal feed..

Figure 10-1. Animal Feed Mills with IR Code



Source: IFIA

Figure 10-2. Percentage of Animal Feed Mills with IR Code

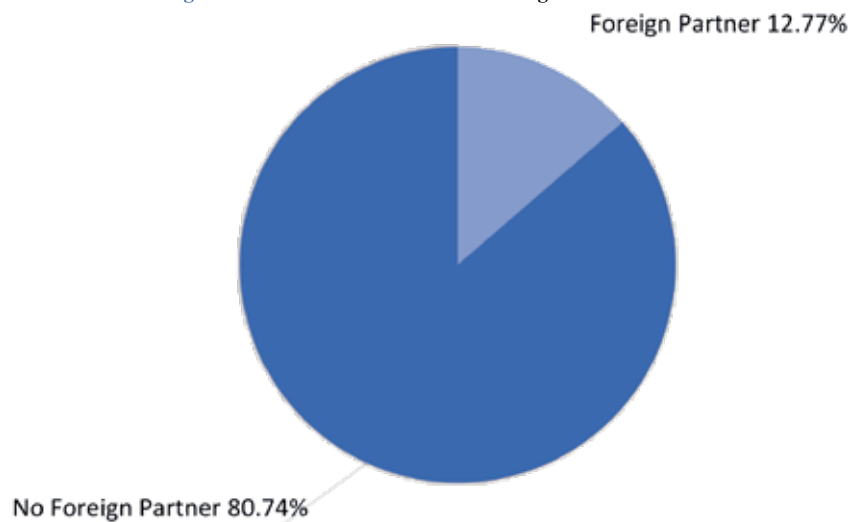


Source: IFIA

Foreign Partners of Animal Feed Mills

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

Figure 10-3. Animal Feed Mills with Foreign Partners -%



Source: IFIA



Additives, Concentrates & Premixes Production



Iran poultry concentrate market is not significantly developed. The most common concentrates sold and used are at 2.5% and 5%. Total market requirement of concentrates is 300,000 tons, and about 30,000 tons are manufactured by Iranian animal feed mills. Poultry premixes are mineral and vitamin supplements in the Iranian market. Farmers prefer to buy mineral and vitamin supplements separately and mix it on site. A considerable potential exists in the market for concentrates.

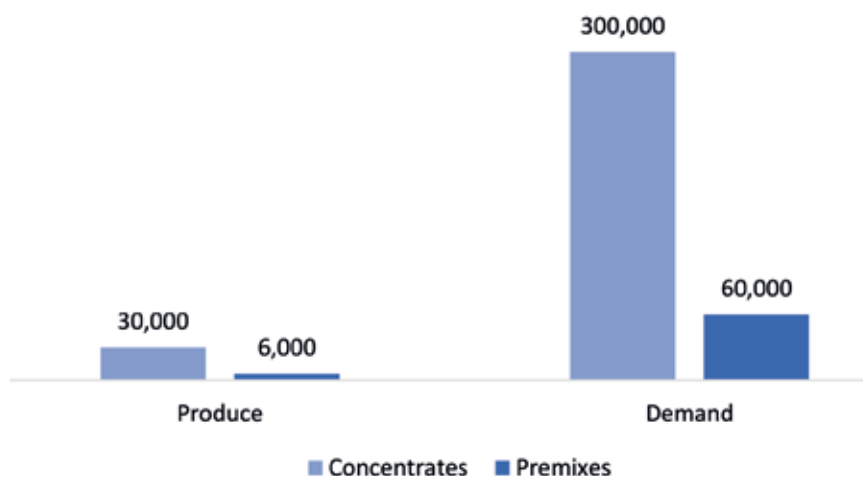
The Ruminants market needs a total of 60,000 tons premix and 10% (6,000 tons) is manufactured by industrial feed mills. Concentrate for ruminants is not common in Iran, but other products are consumed as milk-replace, which are imported.

Table 10-10. Additives, Concentrates & Premixes

	Produce	Demand
Concentrates	30,000	300,000
Premixes	6,000	60,000

Source: IFIA

Figure 10-4. Additives, Concentrates & Premixes



Source: IFIA

Animal Feed Production by Provinces

Iran's active feed mills have 19 million tons capacity and produce 9.2 million tons of animal feed. Major animal feed mills are in Razavi Khorasan, South Khorasan, Mazandaran, Fars, Isfahan, Kermanshah, East and West Azarbaijan provinces. In the year ended March 2018, more than 13 million tons of animal feed was consumed; 9.2 million tons were manufactured in animal feed mills, and about 4 million tons were recycled from agricultural and horticultural wastes.

Table 10-11. Average Nominal Capacity & Production of Animal Feed Mills

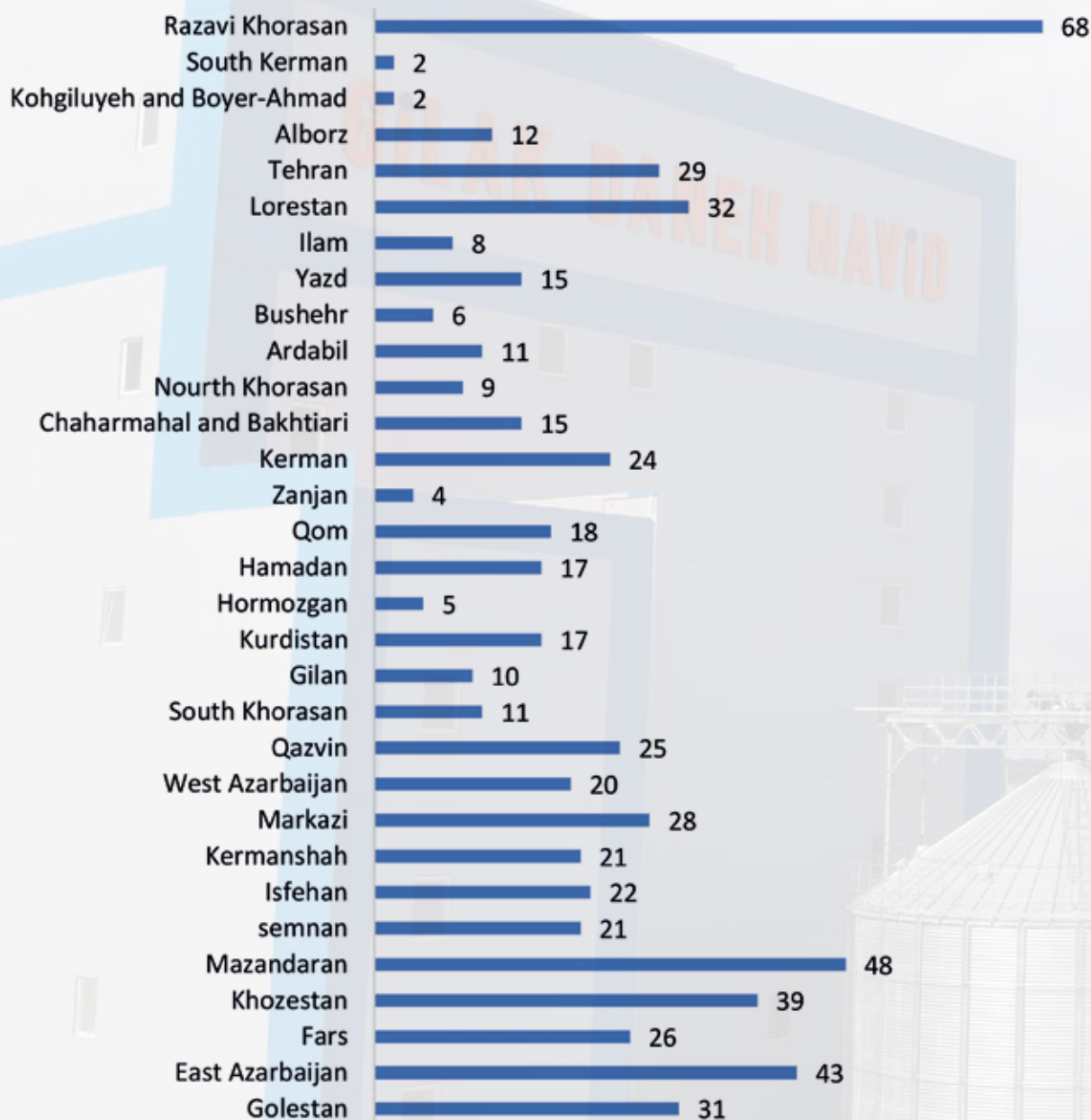
Province	Mills	Nominal Capacity (000 tons)	Capacity Based on Nominal Capacity (%)	Coefficient Based on Value of Production (%)
Golestan	31	1,120	6.80	3.55
North Korasan	9	270	1.47	1.51
Semnan	21	430	1.63	1.73
Isfahan	22	530	7.26	7.12
Razavi Khorasan	68	3,200	14.27	6.58
Yazd	15	230	1.40	2.09
South Khorasan	11	700	5.60	1.92
Kerman	24	430	1.58	2.45
Sistan and Baluchestan	13	360	1.68	1.83
Hormozgan	5	120	0.53	1.27
Fars	26	950	5.33	6.53
Qom	18	530	2.61	2.11
Bushehr	6	250	1.08	1.06
Kohgiluyeh and Boyer-Ahmad	2	60	0.26	1.06
Chaharmahal and Bakhtiari	15	270	1.59	2.21
South Kerman	2	40	0.17	1.06
Mazandaran	48	2,000	7.38	6.05
Tehran	29	750	3.35	5.54
Alborz	12	600	2.45	2.51
Qazvin	25	940	2.31	4.07
Gilan	10	250	1.39	3.13
West Azarbaijan	20	850	4.96	4.39
East Azarbaijan	43	980	3.72	6.02
Ardabil	11	270	1.42	3.02
Zanjan	4	110	0.60	1.76
KUrdistan	17	400	3.75	2.07
Kermanshah	21	900	4.93	2.54
Hamadan	17	200	1.40	3.59
Lorestan	32	370	1.95	3.17
Markazi	28	700	2.37	3.06
Ilam	8	200	0.91	1.24
Khozestan	39	700	3.86	3.75

Source: IFIA

The highest concentration of animal feed mills is located in Khorasan Razavi province (68 units), which is about 10.88% of the total feed mills, and the lowest are in Lorestan and South Kerman Provinces with only two production units.



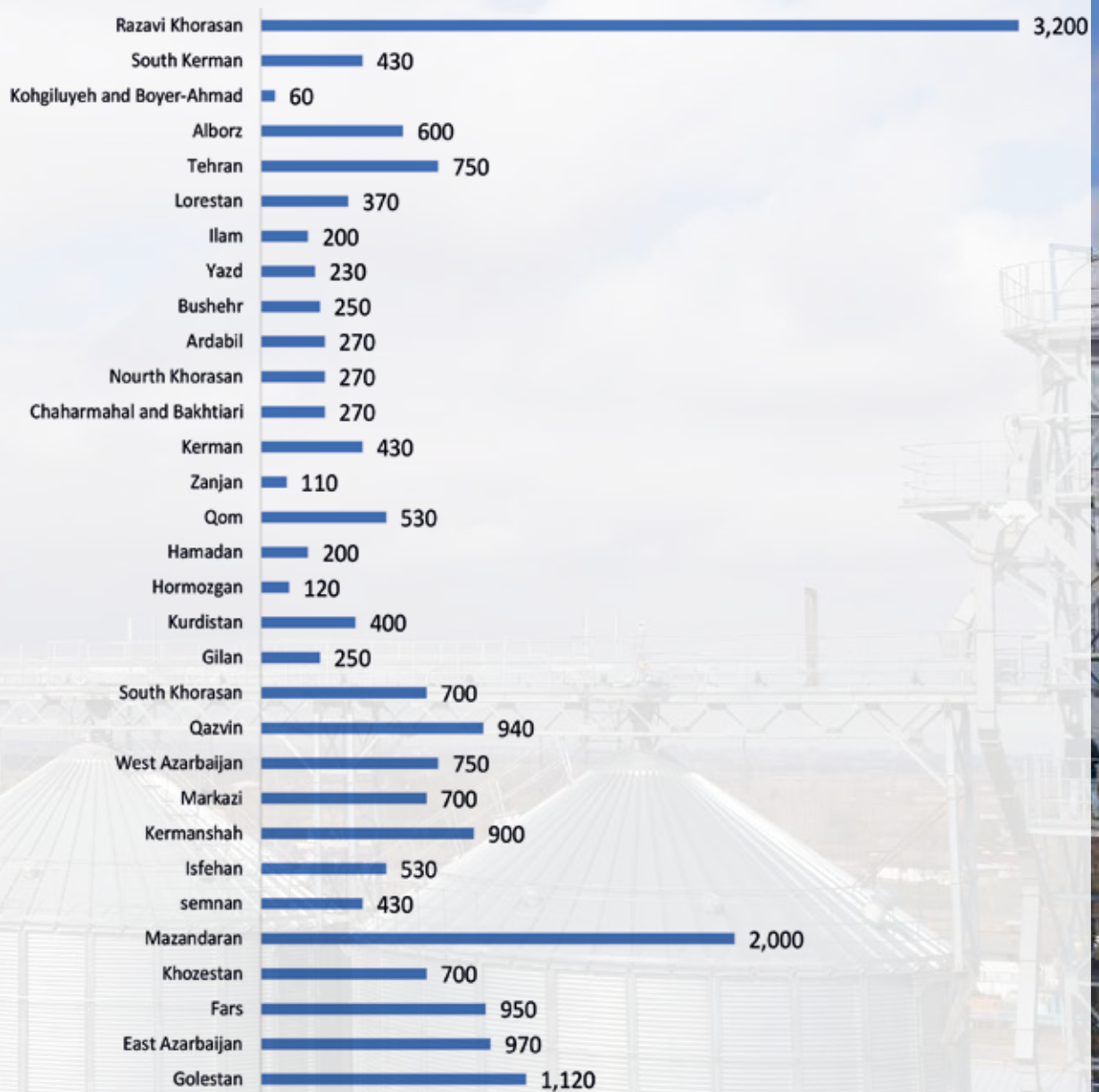
Figure 10-5. Number of Animal Feed Mills in Provinces



Source: IFIA

Khorasan Razavi province has the highest nominal capacity of animal feed production at 3,200,000 tons (Mazandaran, Golestan, East Azarbaijan, Fars and Qazvin Provinces). The lowest nominal capacity of animal feed production was 60,000 tons (Kohgiluyeh and Boyer-Ahmad)

Figure 10-6. Production Nominal Capacity of Animal Feed Mills in Provinces- (000 tons)



Source: IFIA

Total animal feed production has risen from 3,177,391 to 5,575,943 tons with an average growth rate of 75.5% during the years ended March 2014 to 2017.

Market Overview

Animal feed is produced in over 30,000 feed mills (more than 1 billion tons, at a value of 469 billion USD), with more than 80% owned by the 10 largest countries in the world. America (17%) and China (19 %) enjoy one-third of the manufactured industrial feed, the next ranking countries are France, Spain, Mexico, Russia, Brazil, India, Germany and Japan. Food and Agriculture Organization (FAO) has projected that the feed demand will increase to 60% by 2050, as well as, a 1.7% increase in animal protein production during 2010-2050. In Iran, the market value of animal ready-made and industrial feed is over 2.9 billion USD and animal production share over 11.2 billion USD, 2.9 billion USD of which is related to animal feed mills. The Iranian animal feed industry plays an important role in the total industry with 0.8 billion USD fixed capital and 2.6 billion USD working capital.

Required Animal Feed Ingredients

The required input for animal feed are 72,264,000 tons, at a value of 10.2 billion USD. The most demanded inputs, wheat and barley bran, amount to 14,446,000 tons, and the least demanded input, wheat, is 766,000 tons.

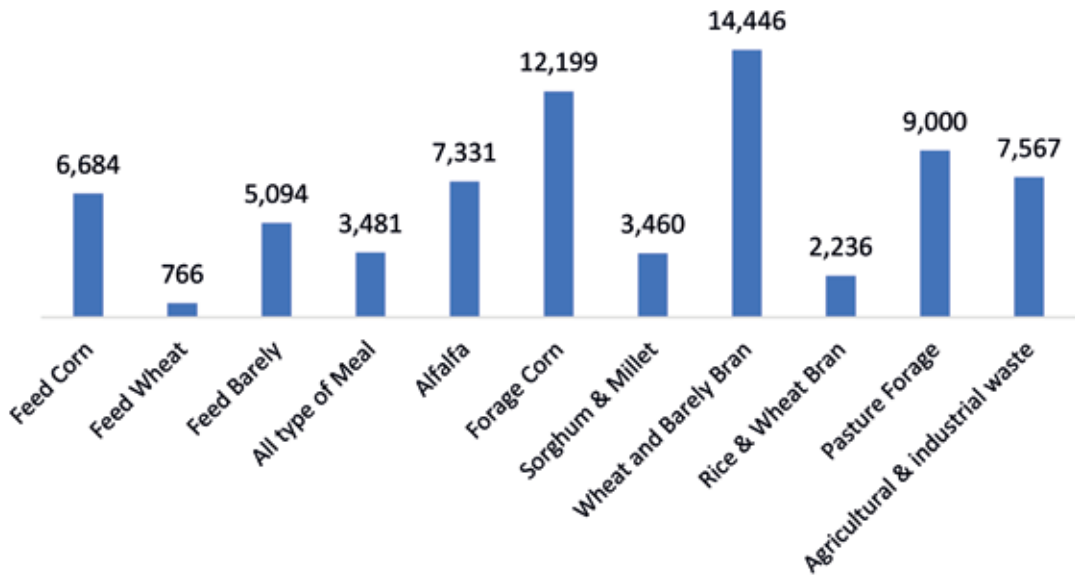
Table 10-12. Required Animal Feed Ingredients

	000 tons
Feed Corn	6,684
Feed Wheat	766
Feed Barely	5,094
All type of Meal	3,481
Alfalfa	7,331
Forage Corn	12,199
Sorghum & Millet	3,460
Wheat and Barley Bran	14,446
Rice & Wheat Bran	2,236
Pasture Forage	9,000
Agricultural & industrial waste	7,567
Total	72,264

Source: IFIA



Figure 10-7. Required Animal Feed Ingredients -000 tons



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.







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 2017

- ◆ 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

Project by 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.

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

- ◆ MOU between Iran Animal Feed Association and NIOBio company of Russia, March 2017.
- ◆ MOU between Iran Animal Feed Association and GMP+ international validation company, October 2017.
- ◆ MOU between Iran Animal Feed Association and state trade company of Kazakhstan, October 2017.
- ◆ MOU between Iran Animal Feed Association and Russia grains council, April 2018.
- ◆ MOU between Iran Animal Feed Association and animal feed producer's union of Russia, April 2018.
- ◆ MOU between Iran Animal Feed Association and national animal feed of Russia, April 2018.
- ◆ MOU between Iran Animal Feed Association 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 Province: Chaharmahal & Bakhtiari	150,000 tons	
2	21 Beyza Province: Fars	50,000 tons	
3	Mazandaran Animal & Aquatic Feed Province: Mazandaran	46,000 tons	
4	Kimiyagaran Taghziyeh Province: Chaharmahal & Bakhtiari	34,000 tons	
5	Havorrash Province: Bushehr	20,000 tons	

Iran Animal Feed Mills with IR Code

 <p>Sepahan Danesh Parsian CEO: Dr. Ghalamkari Province: Isfahan</p>	 <p>Avizhe Darou CEO: Mr. Habib Province: Markazi</p>
 <p>21 Beyza CEO: Mr. Abudi Province: Fars</p>	 <p>Kaivan Morgh Par Tala Mahabad CEO: Mr. Savari Province: West Azarbaijan</p>
 <p>Mazandaran Livestock & Aquatics Feed CEO: Mr. Kaboli Province: Mazandaran</p>	 <p>Khorak Pardaz Hezar Dasht CEO: Mr. Makuei Province: Alborz</p>
 <p>Gohar Danesh Shargh CEO: Mr. Salahshoor Province: Razavi Khorasan</p>	 <p>DaneDaran Toos CEO: Mr. Hasan Zadeh Province: Razavi Khorasan</p>
 <p>Amol Behdaneh Tabarestan/Miran CEO: Mr. Miran Province: Mazandaran</p>	 <p>Dan Va Oloofeh Shargh CEO: Mr. Mohamadi Province: South Khorasan</p>
 <p>Daneh Pak Khazar/Savana CEO: Mr. Tahmasebi Province: Mazandaran</p>	 <p>Sepehr Iranian Caspian/Anzali Free Zone CEO: Mr. Chaouchen Province: Gilan</p>
 <p>Fara Danesh CEO: Mr. Heydai Province: Chaharmahal & Bakhtiari</p>	 <p>Orom Gohar Danesh/Morgh Dehkadeh CEO: Mr. Hossaini Province: West Azarbaijan</p>
 <p>Kimiyaaran Taghziyeh CEO: Dr. Rezaei Province: Chaharmahal & Bakhtiari</p>	 <p>Setareh Kian Birjand CEO: Mr. Kheirieh Province: South Khorasan</p>
 <p>Koudijs Pars CEO: Mr. Cheraghchi Astaneh Bashi Province: Khuzestan</p>	 <p>Kimia Dan Torbat CEO: Mr. Mohamad Zadeh Province: Razavi Khorasan</p>
 <p>Dordaneh Razavi CEO: Mr. Bagheri Province: Razavi Khorasan</p>	 <p>Gorgan Va Dasht CEO: Mr. Eftekharodin Province: Golestan</p>
 <p>Hashtgerd Supplement CEO: Dr. Nosrat Province: Alborz</p>	 <p>Lordegan199 Cooperative Province: Chaharmahal & Bakhtiari</p>
 <p>Arina Roshd Shomal CEO: Ms. Khorsand Province: Mazandaran</p>	 <p>Kalhor Danesh Jonoob CEO: Mr. Rashidi Province: Khuzestan</p>
 <p>Alborz Dam Daroo/Alborz Dan Province: Mazandaran</p>	 <p>Gharb Danesh Abidar Zagros/Gharb Danesh Group CEO: Mr. Mandoomi Province: Kurdistan</p>



Members of Iran Feed Industry Association

Iran Animal Feed Mills	Nominal Capacity (tons)	Iran Animal Feed Mills	Nominal Capacity (tons)
East Azarbaijan		• Mad Daneh Boroujerd	24,000
• Agriculture Cooperative of East Azarbaijan	120,000	Ardabil	
• Shadmehr	51,000	• Zibadaneh Sabalan	10,000
• Fakoor	6,800	• Najafi	700
• Haji Poor	24,000	• Nami	44,000
• Daneh Sabalan	24,000	• Azar Daneh Meshgin	-
• Afkhami	19,500	• Samian	15,000
• Ghaflan	-	• Asra	-
• Behin Daneh Azarbaijan	60,000	• Arazimak	40,000
• Ag-Cooperative of Marand	1,500	Isfahan	
• Mohamad zadeh	17,500	• Sepahan Daneh Parsian	27,000
• Rahimloo	10,500	• Ghasemi Nejad	6,000
• Azarbaijan	86,000	• Larsk Cooperative	9,000
• Rezvan	75,600	• Morvarid Daneh Sepahan	30,000
• Niroo Sahand	200,000	• Dastchin Aali	26,000
• Negin Daneh Gharb	110,000	• Momtaz Daneh Kohpayeh	3,000
• Azar Daneh Bonab	18,000	• Mohamad Hossain Mehri	9000
• Ag-Cooperative and service of Ahar	7,500	• Negin Mazraeh Harand	-
• Zaer Kaabeh	19,500	• Pajooresh Parvar Zayand	18,000
• Zardaneh Karan Marand	39,600	• Pishgam Damparvar Sepahan	18,000
• Govahi	3,000	• Cattle breeders of Tiran & Karavan Cooperative	9,000
• Fathi Brothers	-	• Chavdaneh	29,500
• Poor Mohammad	5,000	• Chakavak Daneh Zavareh	18,000
• Shad Bakhsh	4,940	• Espadana Halah Poultry Chain Complex	12,000
• Baghi	-	• Khorak Sazan Isfahan	9,000
• Niroo Daneh Sahand Maragheh	40,000	• Daneh Zarrin Naghshe Jahan	18,000
• Nick Daneh Sahand Maragheh	124,800	• Nivan Golpa	9,000
• Tak daneh Motahar Azarbaijan	-	• Ramyar	9,000
• Kamel Daneh Maragheh	-	• Mahdaneh Ashayeri	18,000
• Azardan Maragheh	21,000	• Kimia Roshd Sepahan	-
• Feshangchi	5,000	• Kabileh	220,000
• Abbas Zad	-	• Omid Amir Yousefi	9,000
• Azar Daam Sam	1,400	• Isfahan Mokamel	27,000
West Azarbaijan		• Ashkan Daneh	9,000
• Keyvan Morgh Par Talai Mhabad	30,000	• Araz Daneh Sepahan	5,000
• Oroom Gohar Daneh	40,000	• Behparvaran Nami Naghshe Jahan	7,000
• Oshnoo Gostar	48,000	• Azmoon Daneh West Sepahan	18,000
• Oshnoo Zarrin	9,000	• Dan Gostar Ahook	9,000
• Tollo Azarbaijan	-	• Mobin Kashan	5,000
• Zarrin Daneh	9,000	Ilam	
• Milad Mahabad	146,000	• Roshd Kar Sarableh	9,000
• Mohamad Kamyar	24,000	• Zagros Daneh	9,000
• Dr. Sojoodi	20,000	• Morgh Daneh Ilam	9,000
• Araz Dan Chaipareh	10,000	• Ilam Ashayer	7,200
• Feed Bookan Industrial	20,000	Bushehr	
• Orrom Daneh	19,800	• Taam Sazan Bandar	15,000
• Dam Gostar Salmas	30,000	• Hoorash	40,000
• Khorak Gostaran	-	• Daneh Gostar Ahmad	2,000
• Hamid	90,000		
• Oroom Chakavak	18,000		

Iran Animal Feed Mills	Nominal Capacity (tons)
Chaharmahal & Bakhtiari	
• South Saharkhizan	2,400
• Feedar Patira	3,500
• Morvarid Gandoman	8,000
• Momtaz Sooreshjan	24,000
• Kimiagaran Taghziyeh	44,000
• Fara Daneh Aquatics Feed	40,000
• Dordaneh Kian	15,000
• Roshd Daneh Aquatics Feed	10,000
• Dordaneh Falard Aquatic Feed	21,000
• Jahan Daneh Shahrekord	10,000
• Lordegan199 Cooperative	18,000
Nourth Khorasan	
• Alghadir	44,000
• Chamanzar Farooj	-
• Goldasht Shirvan Cooperative	30,000
• Bak Poolad	10,000
• Yekta Daneh	-
• Golestan Behdaneh	45,000
• Bojnord Behdam	20,000
South Khorasan	
• Sajad Sarayan	100,000
• Dan va Oloofe Shargh	75,000
• Sepid Daneh Cooperative	21,000
• Omid Sabz Sarayan	25,000
• Mavadat	24,000
• Khoosineh Poultry Feed	21,000
• Behdaneh Khezri	-
• Setareh Kian Birjand	113,000
Khouzestan	
• Karoon	180
• Sadaf Fish Meal Production	500
• Shoaybieh	60,000
• Karoon Romez	-
• Haft Tapeh Naishekar	90,000
• Navid Daneh Iranian	-
• Ahvaz	20,400
• Maki Dan	18,000
• Kalhor Daneh Jonob	500,000
• Dorna Dan	250,000
• Chamran Mahshar	10,000
• Ashayeri	7,000
Zanjan	
• Novin Parvaz Iranian	1,200
• Zanjan 1	30,000
• ZarinDaneh Hidaj	15,000
• Zanjan Feedar 2	50,000
• Parvaz Novin Tehran	12,000
• Pooyesh Daneh Zanjan Concetrates and Animal Feed	50,000
• Keshztzar Khodabandeh	15,000
Semnan	
• Tabai Fish Meal	1,650

Iran Animal Feed Mills	Nominal Capacity (tons)
• Nabdaneh Semnan Oil Pressing	450,000
• Protein Sazan Ghomes	44,000
• Maral	25,000
• Garmsar Mill	60,000
• Mokhtar Arab	6,000
• Afrand Tooska	-
Fars	
• Zoraat Zardaneh Fars Cooperative	24,600
• Khansha	19,800
• Zomorod Daneh Amiri	6,000
• Farbeh Daneh Pasargad	25,800
• Talaei Daneh	-
• Negin Daneh Cooperative	10,000
• Dorsa Larestan	3,600
• Vahdat	36,600
• Askari Poultry Feed	8,300
• Zar Zolal Daneh Cooperative	5,000
• Gheshlagh	26,000
• Pars Dam Saba	20,000
• Shirin Daneh	75,000
• Arya Marve Daneh	24,000
• Shayan	29,700
• Estakhr	81,000
• Fars	75,000
• Rad Arad Pars	60,000
• Yek Daneh	30,000
• Almas Daneh	30,000
• Fath Daneh Maham Arvand	25,000
• Fars Cultivation and industry Complex	90,000
• Pars Daneh Beyzaa Cooperative	17,000
• 21 Beyzaa	150,000
• Royan Daneh Pars	24,000
• Darya Dasht Daneh	21,500
• Nick Daneh Pars	15,000
• Shahin Pars	1,080
• Fars Cooperative Union of Farmers	6,000
• Behshir	10,000
• Dan Avaran Bistoon	6,000
• Pooya Nahadeh Kimia	18,000
Qazvin	
• Energy and Protein Shayan	100,000
• Choobindar	21,600
• Negin Daneh Qazvin	24,000
• Chavdaneh Negin Gharb	18,000
• Golestan Taak	25,600
• Daneh Taak	75,000
• Negin Khorak Leia	-
• Ziaran	36,000
• Arasanj Cooperative	6,480
• Kavosh Daneh cooperative	-
• Booin Zahra cooperative	45,000
• Kimia	2,800

Iran Animal Feed Mills	Nominal Capacity (tons)
Hormozgan	
• Shahre Aftab Fish meal	2,000
• Mahmood Mobaraki Fish meal	500
• Kimiei Jask Fish meal	1,200
• Aras aquatic feed	2,500
• Fan Avaran Darya Fish meal	3,000
• Sepid Bastak	80,000
• Saba Majde Qeshm Fish Meal cooperative	2,000
• Sayad Qeshm Fish Meal	3,000
• Qeshm Fanoos Fish meal	2,000
• Qeshm Aquaculture Feed	-
• Meto Qeshm Fish International	2,000
• Davood Khadang	2,200
• Salehi Fish meal	11,000
• Sarchil Fish meal	3,000
• Jonoob Fish meal	3,000
• Hormoz Dam	150,000
• Hossain Amaani	37
• Sirik fish meal cooperative	1,100
• Hatami fish feed Cooperative	10,000
• Abdollah Hatami Mazaghi Fish Meal	1,000
Hamadan	
• Golfam Alvand	86,400
• Moeini	28,800
• Asad Abad Jolgeh	5,000
• Kamel Daneh Zarrin Nahavand	2,500
• Danehaye Gharb nahavand	75,000
• Hami Omid Hamedan Agro-Industry	3,600
• Hamadan Kooshe talaee Mad	12,000
Yazd	
• Jamee Gostar Yazd	-
• Zia Daneh Meibod cooperative	21,000
• Simorgh, Yazd branch, Poultry Feed	23,000
• Shokouh Shimi taban Yazd	300
Golestan	
• Persian Complex	-
• Zarrin Daneh Gonbad	74,000
• Damyar Golestan	25,000
• Laleh bagh	-
• Alten Daneh Sahra	45,000
• Dordaneh Amin Alton Sahra cooperative	12,000
• Pars daneh	34,000
• Zar daneh Golestan	7,500
• Abed Golestan	25,000
• Ghaboos daneh	-
• Minoo Sabah	60,000
• Negar Golestan	30,000
• Gonbad	60,000
• Shafa Daneh Gorgan	-
• Shabdar Gonbad Agriculture	-
• Zarrin Roshd Golestan	20,000
• Gorgan & Dasht	184,000

Iran Animal Feed Mills	Nominal Capacity (tons)
• Feyz Abad	50,000
• Tymaz	22,000
• Rame Golestan	22,550
• Artan Daneh Golestan	33,000
• Daneh Talaee Gonbad	79,000
• Banafsh Tapeh	60,000
• Imen Tab Protein production	36,000
• Daneh Aftab Golestan	10
• Behshad Afarin	24,000
• Oloofe Afarin Golestan	4,500
• Salamat daneh Golestan	24,000
• Peygir, Phase 2	-
• Pegah Jahan Nama	100,000
• Mazraee Nemooneh	13,500
• Faravardaneh Arya Production Complex	22,000
• Gol Daneh Sahra-cooperative	29,500
• Chine Sahar Farda Kordan	72,000
• Sefid Bal Ghaboos	-
• Koomeh	-
• Behshad Afarin	24,000
Kermanshah	
• Ravansar Feed	130,000
• Gharb Daneh	130
• Farokhi Brothers	42,000
• Naghshin-aquatic feed	8,000
• Ravansar	120,000
• Kermanshah Daneh	200,000
• Beigi	-
• Pars Gharb	-
• Concentrates Production	-
• Kia daneh Kermanshah	-
• Zarrin Daneh Songhor	36,000
• Taher Abadi	-
• Bisotoon Agricultural Complex	93,500
• Dorsa Daneh Gharb	30,000
• Dan Pak Agrin Production	100
• Danehaye Gharb	60,000
• Farokhi Brothers	-
• Chashm Sefid (white eye)	85
• Tiba Daneh Sazan Novin	-
• Kermanshah Daneh	200,000
• Zarrin Daneh	36,000
• Gonabad Cooperative	15,000
Mazandaran	
• Tala daneh Shomal-cooperative	2,000
• Behdaneh Shomal-cooperative	2,500
• Etehad Khazar Aquatic Production	1,200
• Sahel	122
• Babolsar Fish Feed-cooperative	800
• Negin Toyoor Shomal Tabarestan	3,000
• Goodarzi	15,000
• Alborz Daneh Daroo	40,000

Iran Animal Feed Mills	Nominal Capacity (tons)	Iran Animal Feed Mills	Nominal Capacity (tons)
• Ajdad Morgh	-	• Salar Dasht Jovin Cooperative	-
• Zarrin Emervan	48,000	• Afrial Dasht Join Cooperative	50,000
• Zarrin Balan Shomal	-	• Beh Saman Gonabad Cooperative	24,000
• Pars Daneh Savadkouh	22,000	• Afrooz Jaam	75,000
• Savad kouh-cooperative	21,000	• Golchin Sabzevar	24,000
• Avid	46,000	• Fazel Kakhak Gonabad	-
• Miladaneh Khazar	4,200	• Sabzevar	-
• Dorna Pellet Savadkouh	130,000	• Zarrin Daneh Sabzevar Cooperative	-
• Aashoori	-	• Behin Roshd Ghochan	60,000
• Sepehr Poutry & Aquatic Feed	8,250	• Tous Neishabour	-
• Protein Khazar Meal Production	1,500	• Paya Farayand Hezareh Novin	11,000
• Ghatreh Talaei Now-shahr	35,200	• Gohar Daneh Shargh	1,000
• Solar Sooy Alborz	72,000	• Momtaz Daneh Tous	-
• Doostdaran Ghadir (Doona) Poultry Feed	30,000	• Khorasan	30,000
• Ghaemshahr Cooperative	60,000	• Simin Daneh Neishabour	30,000
• Tirang Daneh Tabarestan	10,000	• Negin Gonabad	42,000
• Behkam Daneh Sedaghat	8,000	• Daneh Daran Tous	80,000
• Pars Daneh Tabarestan	-	• Mehr Chin Chine Kian	21,000
• Gohar Daneh	-	Tehran	
• Mazandaran Livestock & Aquatics Feed	55,000	• Pars	300
• Golnaz Animal Feed	-	• Azheh Nab Tehran	9,000
• Morgh Behesht	11,000	• Yasna Mehr	140,000
• Shimi Alayesh Shomal	-	• Tak Zhen Zist	4,000
• Kimia Palayesh Caspian Sea	-	• Behparvar	72,000
• Tehran Klika Meal	-	• Sanadam pars	150,000
• Kilka Meal Melli	1,500	• Vetak	60,000
• Golshan Assor	1,500	• Mina Toyour	-
• Ashoor Protein	1,800	• Raz Amad	-
• Velesht Daroo	3,000	• Par Arian Dam	-
• Rash Sazeh Behshahr	35,000	• Pars Pouyesh Vitamin	-
• Negin	-	• Telavang	-
• Negin Klika Meal	900	• Kimia Fam	-
• Daneh pak Khazar	333	• Parand	-
• Marshan	-	• Asyab Group	-
• Amol Behdaneh Tabarestan	70,000	• Avaran Tavan Persia	-
• Alborz Makian	30,000	Tehran-Trade Companies	
• Aras Bazar Poultry Concentrates Production	25,000	• Farbeh Daneh	-
Sistan & Baluchestan		• Mahde Amin Kian	-
• Farbeh Daneh Agricultural Production	10,000	• Pars Zhivar	-
Khorasan Razavi		• Timar Makian	-
• Rokh	30,000	• Taraz Trade	-
• Kohpayeh Aftab Shargh	23,000	• Khorshid Tejarat	-
• Zarrin Daneh Sahel	-	• E-Took Farda	-
• Javaneh Khorasan	13,000	Tehran-Machinery Companies	
• Vivan Group	-	• Pishgam	-
• Khaf Cooperative	-	• Bouhler	-
• Fariman	24,000	• Asyab Group	-
• Zar Daneh Diz Bad	40,000	• Feed Machine	-
• Tous Concentrates Production	50,000	Alborz	
• Diz Bad	84,000	• Zarrin Roshd	-
• Saleh Kashmar Complex	250,000	• Khorak Pardaz Hezar Dasht	-
• Kimai Dan Torbat	100,000	• Karaj	-
		• Zarnam Group	-

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IRAN ANIMAL FEED INDUSTRY TOP COMPANIES







Seyed Abdolhossein Jalali
DVM
Chairman



Amir Hossein Khalaji
DVM-MBA
General Manager

Our main focus is customer satisfaction through technical support and sustainable stakeholders benefits.

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Dana Day Co. is a privately-owned Iranian company established in 2004 and specialized in development, manufacturing and marketing a full range of nutritional feed additives, feed pre mixture and extruded feed for animal usage.

The company's principle is to supply high quality feed additives at a competitive price for valued customers.

Being market-oriented, up-to-date and competent are among the most important elements describing the strategies.

Dana Day Co. has created a strong network in the market and gained a good position to work closely with the clients in order to meet their needs and provide the best possible services. In this regard, the company is confident to take a strongly competitive position in supplying nutritional feed additives and pre mixtures in Iranian market.

Dana Day Co. started supplying nutritional feed additives from well-known brands since 2004. As the exclusive agent of reputable manufacturers listed below Dana Day Co. has registered supplied and marketed the following materials in Iran market:

- Choline chloride (NB Group)
- L - Threonine 98.5% (NB Group)
- L - Lysine HCL (Global - Biochem)
- DL - Methionine (CUC)
- MCP / DCP (Chanhen Group)
- Vitamin (A, E, D3, H2) NHU

- Vitamin (B1, B6, B9, B2, D-Calpan) Xinfra
- Vitamin (Niacin) Lasons India
- Vitamin K3 (MSB) Oxyvit (Turkey)
- Vitamin C Anhui Tiger biotech

Supplying special products (Technical and zoo- technical feed additives such as organic acid - NSP enzymes, mycotoxin Binders and anti-mold) for feed millers, farmers and premix manufacturing mills, through smart products farmer can reduce production costs and increase animal health and feed efficiency; Dana Day Co. is also proud to be the sole agent of Anpario PLC from UK in Iran markets.

Through the progressive pipeline, Dana Day Co. has started investment for a new production mill to produce animal feed supplement, pre mixtures, and also high technology extruded full-fat soybean meal in Shokouhyeh Industrial Zone at Qom, near Tehran province.

Products including feed supplement, pre mixtures 2.5% & 5%, extruded soybean, and linseed are produced exclusively and based on contract - manufacturing/ designing business models according to specific animal nutrition and customer demand.

Any Joint-venture, investment, under-license production of special feed additives and supplements for Iran market and also exporting to our neighboring Countries will be welcomed.



MODALAL GROUP



Modalal Family Group, has been active in Agro-industry, Animal Husbandry, Range Management, and related industries (Oil Refinery, Sugar, Cement, etc.) over the past 70 years. Gradually and based on the demands of time as well as on the advancement of the Science of Animal & Poultry Nutrition internationally and its development domestically, the Group took action in the establishment of Kermanshah Danesh feed mill plant in the west of the country with the capacity of 600 MT/day and Kalhor Danesh Jonoub Company with the capacity of 1500 MT/day in Imam Khomeini port in the south of the country for the production of all kinds of animal and poultry feed and concentrate in cooperation with Buhler and Amandus Kal companies. Therefore, the Group, as the largest producer of Animal & Poultry feed, has been active in Iran and has managed to distribute its products among animal and poultry units in the farthest points of the country.

To supply all the ingredients to the aforesaid plants, the Group has taken action in the construction and establishment of crushing and refinery plants in the vicinity of its own feed mill plants, such that the Group has achieved the capacity of producing 6000 MT/day of different meals and oils (Soybean and Canola), and

on top of providing for its own plants, the Group has managed to distribute among the production units of the country.

To ensure the quality of all ingredients such as cereals, protein source and all types of the prevalent additives (all types of amino acids, vitamins, micro & macro elements), the Group has managed to establish loading & unloading equipment and warehousing (a million MT capacity) in Imam Khomeini port in the proximity of Persian Gulf to cater for its own needs and for all other production units in the country the above items from the most credible international companies directly.

The Group has enjoyed the experiences of international experts, well equipped laboratories, and suitable after-sales services and gained customers' assurance in achieving results and satisfaction.

The sales of the products are performed online and fully automated across the country, and the Group has high potential for exports to the neighboring countries since all its plants are well-positioned and have all types of international certificates.



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GOHAR DANEH SHARGH

GDS CO GROUP



Ahmad Salahshour
CEO

Producing and providing adequate and healthy food as well as attaining food security are the most important human needs; on the other hand, inadequate and undesirable food are not only the human problems but also the states' most concern. Since food security is the key to the social welfare and justice, the development and extension of economic, social, and cultural fields require food security undoubtedly. Throughout history, mankind has been trying to improve livestock and poultry production towards food security and increase the efficiency and utilization; whether regarding the soil, planting, growing, and harvesting goods or producing and feeding domestic animals. Hence, animal husbandry and nutrition experts keep discussing upon processing animal inputs and have been succeeded all around the world. The Iranian researchers have studied greatly on enhancing food productivity and some of the studies had been done to localize the scientific results offered by other countries.

Gohar Daneh Shargh Company is considered as a member of 'Gohar Holding' which has an extent market in Iran and other neighbouring countries. The company has aimed to produce and offer diverse and high quality products in order to become more dynamic by using the most advanced machines, devices, experts, and foreign consultants. In line with the development of the company's activities, GDS Co. has initiation of aquaculture feed production line, flaking grains, full fat soybeans, pet and laboratory animals' feed and human semi-ready meals on the agenda. Therefore, the company is ready to cooperate with internationally recognized brands in the fields of production, sales, and etcetera; besides, providing high quality products. Of the competitive advantages of GDS Company, synchronizing with the world's knowledge in the fields of research development, production, and after-sales services could be mentioned. Hence, a University Of Applied, Sciences and Technology (UAST) has started to train highly qualified and efficient staff.

The company, with more than 100 different types of product, is able to operate flexibly regarding the facilities, climate conditions and customer demand in order to satisfy customers. Currently, some of the products are exported to countries, including Afghanistan and Turkmenistan. Gohar Daneh Shargh Company has been carefully tested and examined all raw materials and products by an equipped laboratory with automatic devices and experts.

The company has obtained the honours and production standards, during the period of operation, as follows:

- Top Country Producer
- Top Provincial Producer
- Obtaining Consumer Rights Certification
- Obtaining Grade A from Iran Veterinary Organization
- Obtaining the IR code for export from Iran Veterinary Organization
- Obtaining Standard Certification of Iran
- Obtaining International Standards of ISO 9001, ISO 22000, GMP and HACCP from Swiss SGS Organization
- The company tries to increase the productivity and customer satisfaction, as well as putting all the powers towards improving the products. Customer satisfaction is the key to success not only today but also in the future; plus that the company believes in making progress together would synergize and value to all beneficiaries.



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Factory: Molk Abad Industrial Complex-Mashhad-Baghebeh Road(40kilometers)-Iran

Tellfax: +98 (51) 33523171- 5

Web: www.gohardanehco.com

E-Mail: info@gohardanehco.com



Dr. Forood Yadollahi
CEO

- The reliable companion to Iran's Fishery Industry
- Experiencing three decades of operation in aquaculture, aqua feed production, and fish/shrimp processing, Faradaneh Company has proved to be a trustworthy companion to the Iranian fisheries aiming to build the glorious future of Iran's Fishery Industry.



Aquatic Animal Feed Producer

Faradaneh Co. has experienced 12 successful years in the field of aquafeed production enjoying modern technologies and equipment as well as knowledgeable experts at animal feed production in order to produce vast varieties of high quality animal feed which has achieved significant portion of internal market and export to other neighboring countries and being well-known by other fish-shrimp producer.

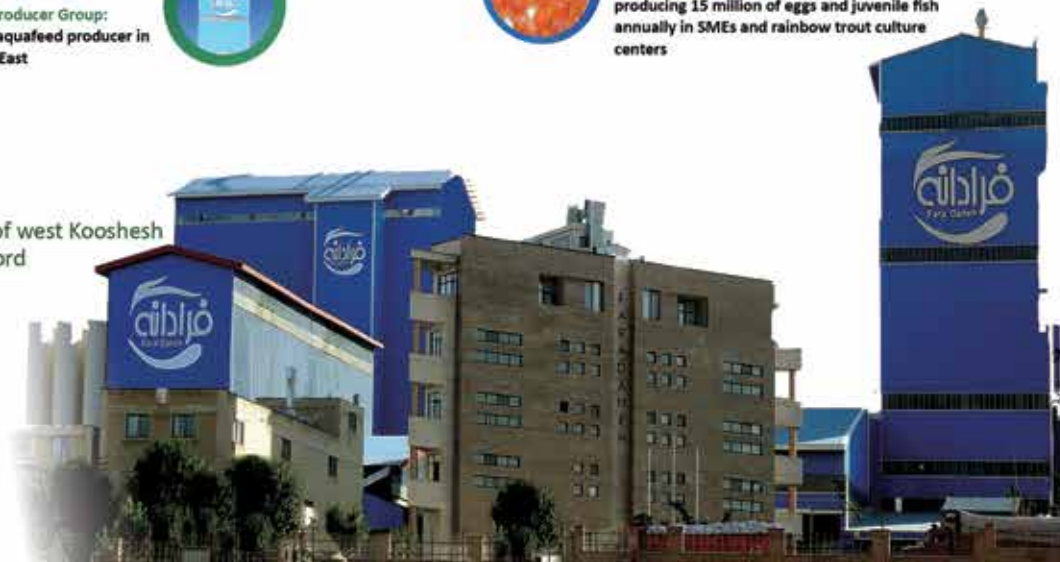
Faradaneh Company with 300,000 tons' capacity of annual animal feed production is the largest aquafeed producer in the Middle East which plays a significant role at internal and external markets as well as producing different kinds of products based on the customer needs and the highest international standards, which tries to develop the current capacity by building and installing six new development lines.

In line with products globalization, the company has set the groundwork for producing new and innovative products by following national and international standards, quality management system (ISO-9001:2015), and food security system (ISO -22000:2005) in all stages of production, enjoying a professional team of research and development in addition to cooperating closely with universities and credible research centers.

Value chain of Faradaneh activities



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Website: www.faradaneh.net





NAVID KHALEEJ FARS (NKF)

Overview

In 2008, Navid Khaleej Fars (NKF) oil-pressing project has begun its activity with the aim of increasing oil and meal production from oil seeds in the country. Regarding the resistance economy doctrine and the vision document 2025, this company has been the largest private sector in the food industry by invest over 150 million USD in the Strategic district of Imam Khomeini Port (BJK).

The project is exploited in three phases with 202,000 square meter lands and the daily production capacity of 6,000 tons (2,000,000 tons per year). The first vice president of the Islamic Republic of Iran was operated the first phase, in February 2017. Unique features of NKF oil-pressing are including gaining significant market contribution of the region and the world, the significant increase of GDP, sustainable employment production with international standards framework.

Capabilities

The company uses the modern technology of oil-pressing. All machines and equipment have been purchased from Italian Andreotti Impianiti Company and have been installed and operated under the supervision of experienced engineers. The major products are including oil and meal, which is worked in the highest quality to decrease import and to compete with the producers of neighboring countries and even the trans-regional. The company is located in the special economic zone of Imam Khomeini port, which have allocated the largest contribution of import of raw feed and agricultural inputs.

Navid Khaleej Fars (NKF) oil-pressing company is distinguished from other oil producers in the country, due to the advantage of presenting in the free trade zone, facilitating the import of raw materials, and exporting products from the exclusive harbor directly.

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support lands., Ports and Maritime
Organization., Imam Khomaimi
Port., Khuzestan., Iran.

Postal Code: 6357173691

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Saleh Kashmar

Integrated Poultry Production Supply Chain



Ghadir Salehi
CEO

Saleh Kashmar Inc. started its activities in 1981 by establishing a 100-dairy cattle farm. The first phase of the animal concentrates production was operated in 1999 and the achievements in the production of livestock concentrate encouraged the development and establishment of poultry ready-made feed production lines.

Attempts to achieve the purposes made Saleh Kashmar Inc. to be selected as the top producer of Iran in 2001. Saleh Kashmar Inc. was selected as the top producer of Iran for the second time in 2011. Pishro Saleh Kashmar Agro-industry Complex, has begun in an area of 250 hectares according to the company's agenda and Iran's policies since 2009 aim to operate broiler and egg production chain in order to complete the production line in the east of Iran. Pishro Saleh Kashmar obtained the top entrepreneur in 2014 and the top national layer poultry farms in 2016, top chain as well as agricultural producer in 2017 in Razavi Khorasan Province under support of manager, personnel and state's organizations and departments. Pishro Saleh Kashmar Agro-industry Complex has taken important actions to meet the Iranian needs and state policies which makes the company to be known as top national broiler producer in 2018.

Introduction to Saleh Kashmar Integrated Poultry Supply Chain

- ◆ Chicken breeder farm with a capacity of 120,000 chickens per period
- ◆ Broiler breeder farm with a capacity of 500,000 chickens per period
- ◆ Layer pullet farm with the capacity of 110,000 chickens per period
- ◆ Layer commercial farm with the capacity of 240,000 chickens per period

Animal Feed Mills with the nominal capacity of 230,000 tons annually

- ◆ Different livestock pellet concentrates production lines with the capacity of 20 tons p/h
- ◆ Poultry feed production line with the capacity of 20 tons p/h
- ◆ The most modern production line for different vitamin and mineral supplements for livestock and poultry with 0.01 gram
- ◆ Production and wet extrusion line of different type of oilseeds including soybean, cottonseed, rapeseed etc. with the capacity of 5 tons p/h
- ◆ Cutting, printing, and weaving laminated and anti-humidity polypropylene sacks production line
- ◆ Corn and steam flake production line with the capacity of 4 tons p/h
- ◆ Poultry industrial slaughterhouse with the capacity of 4000 chicken's p/h
- ◆ A sorting and packaging unit for Par Talaei eggs
- ◆ Saleh Kashmar's affiliate cattle farm of 100 dairy cattle
- ◆ Saleh Kashmar's affiliate milk collection centre

Saleh Kashmar Supply Chain Products

- ◆ Fresh and frozen chicken meat under the brand of Partalae
- ◆ Broiler day-old chicks with Par Talaei trade name
- ◆ Eggs under the brand of Partalae
- ◆ Poultry ready-made feed under the brand of Par Talaei Saleh
- ◆ Chicken breeder and layers processed feed (for all ages)
- ◆ Pellet concentrate for sheep and dairy cows with Parvar e Saleh name
- ◆ Extruded full fat soybean under the brand of Zeet Soy
- ◆ Flakes corn and Barley



Saleh Kashmar Integrated Poultry Production Supply Chain

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Saleh Kashmar Animal Feed

Address: 3rd Kashmar-Khalilabad Road, Kashmar, Razavi Khorasan

Tel: +98 (51) 55333820-3 **Fax:** +98 (51) 55333544

Khadem Reza Kashmar Poultry Industrial slaughterhouse

Address: 7th km Kashmar-Khalilabad Road, Kashmar, Razavi Khorasan

Central Office: No. 63, 10th Kowsar Avenue, North Kowsar Boulevard, Mashhad **Tel:** +98 (51) 38839061-3

Website: www.salehkashmar.com **Email:** vb_salehkashmar@yahoo.com



Dordaneh Khorasan Razavi



Fereidoon Bagheri
CEO

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town

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CEO Tel: +98 (91) 51112215

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Amidst the transition of the animal feed industry followed by more development and enhancement of the livestock and poultry industry, establishment of Dordaneh Khorasan Razavi animal feed mill project began in an area about 15,000 m² in phase 2 of Chenaran industrial town in 2012. The funders selected Chenaran county for its specific domestic and international transit routes with the practical knowledge and experiences in the provision and distribution of raw materials as well as deep recognition and interaction of animal feed consumers and the problems they encountered. Therefore, the company began the extensive researches in regard with the latest technologies in the animal feed industry.

Journeys to Germany and France and checking the latest animal feed processing technologies such as Super Hygienization and Mesh Dryer Cooling Machines of STOLZ (French company) were among the decision made by the company's authorities. Benefitting such technologies in the process of animal feed production were begun after consideration and consultation of technology experts for the first time in Iran. The special feature and many others were distinguished the mentioned project from other similar companies in Iran. Moreover, using the other modern and unique equipment and facilities mentioned underneath had been resulted in the formation of the great and capable complex of Dordaneh Khorasan Razavi with a capacity of 80 tons p/h consisting of three various production lines of poultry feed, a distinct production line of animal feed and distinct production lines of concentrate and complementary.

Also, quality preservation was one of the goals of the company. We hope to be succeeded in the improvement of productivity and enhancement of Feed Conversion Ratio (FCR) as well as to provide services in healthy, nutritious and economic protein production with the attraction of producers' trust and satisfaction.

The funders are pleased to have a great influence on the animal industry with the consultation of experts in the science of nutrients, animal breeding, hygiene, and diseases. They also tried to develop the animal feed industry, make professional teams, as well as use the complex to produce and distribute complete feed to the producers according to the modern standards.

We hope to assist the Iranian obligate producers who are definitely hard working in production process and to play role in the development of Iran.



Pars Animal Feed Company



Mohammad Ali Ekbataninejad
CEO

Pellet poultry feed has been known by "Dan Pars" in Iran which confirms the honesty and quality of services at Pars Animal Feed Company, the first and largest animal and poultry feed mill; believing in that the quality and customer's satisfaction are the best advertisements of the firm.

As the first and largest animal food and poultry manufacturer, Pars Animal Food Co., the owner of Dan Pars brand, has been established since 1966. The father of animal and poultry industry, Dr. Ali Rahimian Esfahani has founded the company more than half a century ago which aims to provide royal customers with qualified goods and services. Considering to provide customer's satisfaction, Dan Pars Co. tries to produce high quality goods with fair prices. The complex is able to produce vast variety of goods regarding more than 20 thousand tons of raw material storage capacity, 600 tons of goods capacity, and 4 modern pellet production lines. Among the competitive advantages, the establishment of the company in Tehran, the proximity to the northern harbors, free consultation services, export goods to neighboring countries, different varieties of goods and prices along with great quality could be mentioned.

The company goods are listed below:

- Dairy goat concentrate
- Meat goat concentrate
- Sheep concentrate
- Lamb and kid concentrate
- Cattle concentrate (dry, low milk, full milk, and super milk)
- Cattle concentrate (normal and super)
- Laboratory animal feed (mice, rabbits...)
- Breeding and race horse concentrate

Poultry feed are listed below:

- Broiler chicken complete feed
- Quail complete feed
- Turkey complete feed
- Partridge complete feed
- Laying hen complete feed
- Breeder hen complete feed
- 2.5 % concentrate broiler types



Head Office

Address: Pars Animal Feed Co., No. 29, Forugh Alley, Towhid St., Tehran
Tel: +98 (21) 66925014
Fax: +98 (21) 66933811
Zip Code: 1419913441

Feed Mill

Address: across from Hawilux, 11th km of Karaj Special Road (Shahid Lashgari)
Tel: +98 (21) 44525637-8
Zip Code: 1389734311

Website: www.parsfeedco.com
Email Address: info@parsfeedco.com



JAVANEH KHORASAN CO.



Mohammad Reza Khabiri
CEO

Javaneh Khorasan Co. has done attempts to develop and improve the status of the animal feed industry. The industry development is in regard with participation, motivation, and support of the private sector. Javaneh Khorasan team believe that the animal husbandry industry of Iran could be improved with our mass assistance and cooperation.

Our Suppliers:



Javaneh Khorasan Co. has been pioneered in the production and distribution of an extensive range of special vitamins and mineral supplements for livestock and poultry such as tailor-made supplements in the market for over 3 decades. The company customizes the productions to the market based on the diversity of animal feed and climate, the different quality of land of each region in order to meet the customer requirements. Moreover, Javaneh Khorasan Co. provides the after-sale services including nutritious, sanitation and management advisory, farms regular visits, and holding workshops with the attendance of industry's great experts in order to improve the staffs' knowledge. The company could develop and expand the export potentials in the region by benefiting the diversity of products based on the demands and providing services.

Livestock products

Pioneer in production of customized livestock supplements such as:

- ◆ Infant calf supplement
- ◆ Fattening calf supplement
- ◆ Heifer supplement
- ◆ Dry cow supplement
- ◆ Anionic salt 1+12 supplement
- ◆ Transition period supplement
- ◆ Bioni pharmaceutical supplement (for ketosis and lameness prevention)
- ◆ Special industrial dairy supplement
- ◆ Super twin supplement
- ◆ DAMINEH supplement special Dairy, non-Dairy, close up and starter
- ◆ Special Lamb and ewe supplements
- ◆ BEHINA –Buffering supplement
- ◆ Special vitamin A premix for ruminants
- ◆ Vitamin premixes D3,E and E-selenium
- ◆ Customer customized livestock supplements

- ◆ Vitamin and mineral supplements for pellet manufacturing company
- ◆ Types of concentrates of 2.5 and 5 percent for laying hens and broiler chickens
- ◆ Canthaxanthin (Lucantin red) and choline chloride (Nutrex) and multi enzymes (Natugrain)
- ◆ Types of single-vitamin premixes (K3-C-E-A-D3) and multivitamins (E Selenium-AD3E selenium and B complex)

Poultry products

- ◆ Vitamin and mineral supplements for different breeds of laying hens (production period rearing period)
- ◆ Vitamin and mineral supplements for different breeds of broiler chickens
- ◆ Vitamin and mineral supplement of parent stock contain organic minerals (Glycinate)



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Teharn Office: Unit 11, Floor 4, No. 25, East Boali Sina Alley, Fatemi Intersection, Valiasr St., Tehran, Iran.

Mill Address: Block 274, Between 5 and 7 Alley, North Talash Blvd, First Phase, Tous Industrial Park, Mashhad, Iran.

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www.javanehkhorsan.com info@javanehkhorsan.com



SETAREH KIAN BIRJAND

FEED MILL

Seyed Ali Kheirieh CEO

Iran is passing from the developing to the developed country. The necessity of sustainable development is enjoying healthy and joyful nation. Setareh Kian Birjand's team has a duty, which provides the sanitary and the high quality animal feed to production of animal protein sources; so, we are shared in the development process of the country. In order to achieve Setareh Kian Birjand's goals the essential factors is needed to produce standard products, such as high quality raw materials, using modern technologies and utilizing knowledge and new findings in nutrition science and the production of animal feed, the presence of creative and educated employees who are committed to sustainable values. Setareh Kian Birjand has described the transcendental values to staff in its regulations as: relying on the industrial dynamics and search for innovations related to industry, maximum operation accuracy, and the health of white meat's final consumers, which should be full of respect and honesty, satisfaction of employees, which is manager's mission and finally considering the environment and preventing its pollution.

Regarding the above-mentioned goals, we expect to be well known in the future, as the largest and most reliable producer of animal feed in Iran and Central Asia and the best brand in the supply chain of healthy livestock protein and white meat. Moreover, we will provide health and relaxation of final consumers by producing a product at the highest levels of health in their diet.

Setareh Kian Birjand has begun its activity as the largest automatic animal feed mill under the supervision of Trouw Nutrition Co. (Netherlands) in 2014, benefitting Iranian experts and engineers with the capacity of producing 50 tons and storing over 40,000 tons of production per hour.

Regarding the 30 years' experiences and sustainable success of the managers in the animal feed industry and benefitting professional experts as well as enjoying the world modern and the best technologies through modern laboratories equipped with NIR (Near Infrared); the mill attempts to provide production conditions in regard

with Iran Veterinary Organization's strategies and priorities in terms of quality and quantity according to the modern technologies in order to grant the highest operation, benefit and (international and domestic) customers' satisfaction, in addition to decrease the problems of feed mill industry.

Setareh Kian Birjand Feed Mill is one of the largest exporters of complete feed (7,000 tons per month) to Afghanistan. The mill's potential includes creating joint venture in production and export with other countries (such as Azerbaijan, Armenia, Turkmenistan, Tajikistan, Kazakhstan, Georgia, etc.)



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Birjand Office: 1st Floor, Ordibehesht Bldg., Corner of Beheshti 6 St., Beheshti Ave., Birjand, South Khorasan, Iran

Mashhad Office: No. 612, 6th Floor, Kian Center 2 Complex, Intersection of Janbazan, Faramarz Blvd., Mashhad, Iran

Main Factory: 40th km of Birjand-Zahedan Road, Birjand, South Khorasan, Iran

www.setarehian.com sale@setarehian.com info@setarehian.com

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Tel: +98 56 32 23 49 07-8

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Research & Development are Endless Ways; our ideal is high quality & customer satisfaction

Hashtgerd supplement company has been established by a team comprised of experienced experts and investors in the animal feed industry in the year ended March 1996. Its establishment has been begun in the year ended March 1997, and the first products have been distributed in the market in the year ended March 1999. The company is located in 70 km of western Tehran, with an area of 5,000 square meters. The privileges of the company are modern and advanced production facilities, well-equipped quality control labs, R&D sector, consumption warehouse and raw material refrigerator. Hashtgerd supplement company is independent, dynamic and expandable organization, and the Board of Directors and Managers are experienced with the necessary expertise in their duties. The company has influenced in updating production lines and products by facilitating and improving the production lines,

establishing 9 production lines including 3 premixing lines and a concentrating line as well as 3 livestock and poultry feed lines, a flack feed line and an equipped line for aquatic feed production since the year ended March 2014. Other proceeding could be considered are mineral premixes export to Austria and producing 14 new products for poultry and horses.

The modern equipped laboratory department of the complex has also been as the most comprehensive livestock and poultry analysis laboratory in the country; and was succeeded in obtaining a partner laboratory certificate from Ministry of Health and Medical Education, Iran Veterinary Organization and Institute of Standards and Industrial Research of Iran. The company also has a ISO-22000 certificate as well as national standard IR code in animal feed.



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GHARB DANEH HOLDING



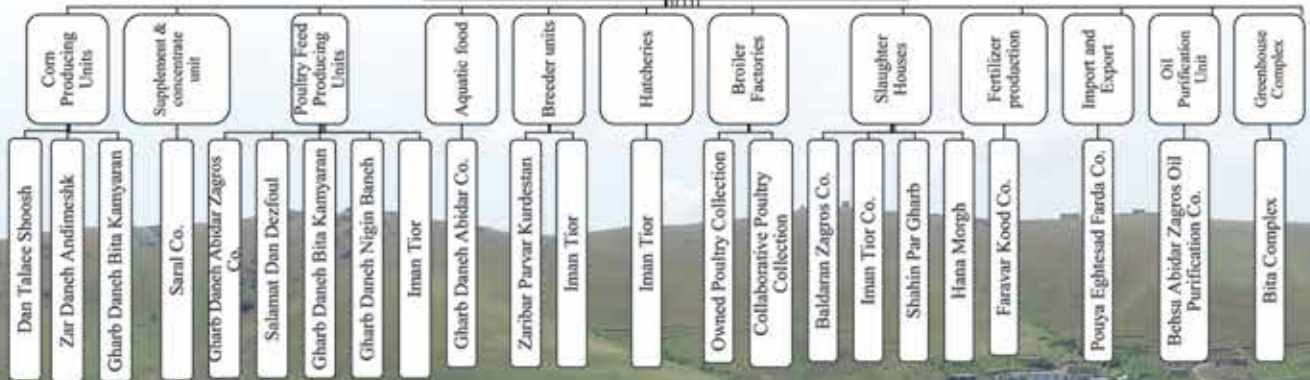
Borhan Mandomi
CEO

Gharb Daneh Holding acts in the field of agricultural production and supply commodity with a focus on the production and supplying chicken meat. Gharb Daneh Group supplies a significant share of inputs of the poultry industry, especially in the west, northwest, south and north of Iran. Success in this field is due to the proper management and continuous efforts to enhance the technology and production quality. Providing superior quality products along with competitive prices have always been the advantage of Gharb Daneh Group throughout Iran, while a few companies have been able to bring the two features together and in sync.

In 2017, Gharb Daneh Holding obtained the first place among 700 poultry and livestock feed mills by plans to improve, maintain and develop technologies and increase the quality of its products and is honored by chosen as the pioneer in the animal feed industry due to the years of constant effort, perseverance, customers satisfaction, honest service, and an attempt to increase employment and production.

The success has had a long-lasting effort and being known as Gharb Daneh Holding is since the presence of investors of the industry in the past and present indicates its strength and superiority.

Gharb Daneh Group Integrated Chain



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POUYA EGHTESAD FARDA Co.



Seyed Kazem Mousavi Fakhri
CEO

Due to the expansion of the activities of Gharb Daneh holding, there was a need for special investment in commerce sector, an important part that can reduce the cost of supplying raw material, and increase the efficiency of the holding. Regarding to this fact in 2016 managers of the Gharb Daneh Holding established a Commercial company which is known as Pouya Eghtesad Farda Co. This company is active in the field of trade, commerce and input supply. Nowadays Pouya Eghtesad Farda Co. is one of the most active Iranian companies with a good reputation among international traders and companies mostly in the field of supplying grains such as maize, barley and soybean. This feature of Pouya Eghtesad Farda Co. is a strong point of Gharb Daneh Holding in creating competitive power. Providing high quality raw materials from international markets to enhance product quality of the Gharb Daneh Holding and reducing the costs are the main goals of this company.

Gharb Daneh Group Capacities

Poultry Feed Production Capacity	240,000 tons annually
Aqua-Feed Production Capacity	15,000 tons annually
Poultry Slaughtering Capacity	10,000 p/h
Organic Fertilizer Production Capacity	40,000 tons annually
Broiler Breeder Brooding Capacity (Proprietorship & Joint venture)	140,000 per period
Hatchery Plants Capacity	18,000,000 annually
Feed Corn Production Capacity	90,000 tons annually
Concentrate Production Capacity	12,000 tons annually
Complementary Production Capacity	1,500 tons annually
Broiler Brooding Capacity (Proprietorship)	1000,000 per period
Direct Supplying Store in Cities	40 stores

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www.pe-farda.com

Members of the Board



Mohammad Navid Talami



Mostafa Navid Talami



NAVID MORGH GILAN

Important role of food is clear in the society. Due to the society's development, increase of the food quality and health has been considered which led to the importance of animal feed industry. Moreover, the healthy food production has very tight interconnection with the healthy animal feed production. Navid Holding is pleased to gain over 40 years' experience in the production and services as well as provide the domestic stockbreeders' requirements. During the years of activity, the holding tends to develop the animal industry by using



Gilak Daneh Navid

modern knowledge and technologies and could achieve a remarkable success in this regard.

In the current economy, opportunities and challenges are interconnected although Navid Holding tries its best to produce high quality products and provide proper services in this regard. Already, Navid Holding tries to allocate a great share in influence on the development of the animal feed industry and present in the global market. In addition, the holding tends to gain a great share for provision of the global stockbreeder's requirements.



Navid Morgh Gilan

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Navid holding began its activity in the field of breeding broiler chickens by Mr. Abdollah Navid Talami in Rasht Industrial City in 1977. Navid Morgh Guilan has developed the broiler chickens and breeder farms, broiler hatcheries in agricultural site and bio-security establishment throughout the Guilan province and known as one of the largest one day-old chick producers and an exclusive leading company to produce white meat. Recently, owing to plenty of warm water fish farms, the company developed as a great fish producer. Gilak Daneh Navid Company (GDN) was established as one of Navid Morgh Guilan Holding subsidiaries with the aim of producing aqua feed, poultry feed, livestock

feed and pet food in Rasht Industrial City in 2015. The company will be developed with the establishment of feed mill and poultry slaughterhouse in the near future as a complete chain under the name of Navid Brand more than ever.

The operating sections are:

- ◆ Grandparent broiler chicken farms
- ◆ Broiler breeder farms
- ◆ Hatcheries
- ◆ Broiler chicken farms
- ◆ Livestock, poultry, aqua feed, and pet food mills
- ◆ Warm water fish farm
- ◆ Animal husbandry
- ◆ Poultry slaughterhouses





Ahwaz Livestock & Poultry Feed Co.



Amir Pouyan Soltani Kazemi
CEO

Indeed, animal feed plays an important role in the health and food security of society. Quality of human life is significantly under influence of high-quality food which enjoys a very tight interconnection with the health of animal feed.

Ahwaz Livestock and Poultry Feed Co. plays an important role to provide the stockbreeders' requirement in order to produce a high-quality product by utilization of modern equipment and expert's knowledge. Moreover, the health and efficiency of products are guaranteed with various formulation and quality control. Finally, in the competitive world the company hopes to achieve the first place in the animal feed industry with the development of production mechanism in order to provide the high-quality products as were done in the previous years.

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Ahwaz Livestock & Poultry Feed Co. (Khouzestan Daneh) was established to provide the animal husbandries requirements to the high-quality animal feed of province and get independence from the neighboring provinces by assistance of Iranian professionals and experts under the supervision of the private sector in 1993. The Ahwaz Livestock & Poultry Feed Mill enjoys the potential to produce annual amount of 40,000 tons of feed in pellet and 50,000 tons in mash as the largest livestock and poultry feed producer of the Khuzestan province.

Production

Already the company produces different feeds in various size and qualities for most of the livestock, poultry and aquaculture farms. Moreover, the products are available in both forms of mash and pellet. Although, pellet meal concentrate is suggested more since the following advantages.

Advantages of Pellet Meal

- ◆ Improving the feed conversion ratio and increasing the milk production in dairy livestock as well as meat production in the breeding livestock
- ◆ Increasing the palatability and improvement of feed consumption
- ◆ Increasing the digestibility of concentrate nutrition and improving milk production as well as gaining weight in the livestock
- ◆ Decreasing the microbial feature of pellet concentrate since the pressure and high temperature
- ◆ Decreasing the feed volume since pressing and declining the space to keep





Shahin Makohi
CEO

Industrial production of animal feed, concentrate, and livestock and poultry supplementary was began to manufacture in Iran at the early 1950 and about 20 active animal feed mills were added until the end of 1977. According to the latest reports, about over 600 animal feed and concentrate mills are under operation in Iran.

Need for industrial animal feed has been grown significantly, after establishment of Animal Science Research Institute of Iran (ASRI) followed by research activities to increase the quantity and quality of products. On the other hand, increase of social health and sanitary in regard with livestock and poultry disease outbreak made the animal feed mills to manufacture high quality products in a healthy and disease-free place. Indeed, achievement to such products led to provision of the proper hardware including modern equipment and machines although the technical knowledge, expert and efficient human resources, united arrangement and proper management led the animal feed mill to place among the top manufacturers. Khorak Pardaz Hezar Dasht could enjoy share in manufacturing healthy animal feed with high quality and providing services in the protein chain, by benefiting such human resources and proper hardware as well as having developed technical knowledge.



Khorak Pardaz Hezar Dasht

Khorak Pardaz Hezar Dasht has began its activity in the production of livestock and poultry feed with several years' experiences in the production of supplementary in 2006. The products include supplementary, animal feed and concentrate (in mesh, pellet and crumble). The features include: utilization of modern machineries in a healthy space, location in an accessible place and enjoying equipped chemical and microbial laboratories. The group enjoys 3 production lines for feed and concentrate, supplementary, and R&D which is unique in Iran.

Technical team of Khorak Pardaz Hezar Dasht consists of experienced and educated Nutritionists and animal husbandry engineers from the top Iranian and European universities. In addition to the active attendance in production processes, the company is ready to have technical assist with customers. Moreover, the company would apply products by order in various fields with the highest quality.



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Makian Noavar Co.

Makian Noavar Co. began its activities in the production and distribution of livestock, poultry and aqua-feed as well as complementary in 2004. In this regard, the company attempts to develop the activities by benefitting the experienced experts and high-quality products.

Makian Noavar is a pioneer company in production and distribution. During two decades, the company achieved numerous success through the constant activities in animal feed sector as following:

- ◆ Obtaining sanitary permit to produce and process required Bentonite in the animal feed industry from Veterinary Organization for the first time in Iran in 2014. Regarding the diverse use of Bentonite in the different industries, Makian Noavar Co. could be granted patent of its product under the brand of Makobent for veterinary uses and with a special analyze after 5 years.
- ◆ Granting patent and obtaining operational license of animal feed by using agricultural wastes under the brand of Makomeal in 2010. The product was unique in the world which was succeeded by several years of Makian Noavar Co. experts' attempts. Makomeal owns 22-22% protein and 2900 kilocalorie of raw energy and make the feed quality growth as well as decrease of actual cost regarding the edibility feature in the diet.
- ◆ Selected as the best producer of Tehran in 2011
- ◆ Selected as top poultry... of Zanjan province in 2010
- ◆ Supply of high-quality minerals with competitive cost.

Regarding the current economic status of Iran, in order to get independence in import of foreign products Makian Noavar Co. tries to provide the requirements of domestic consumers and export to different countries by relying on expert personnel in line with the national self-sufficiency.





Reza Eftekhareddin
CEO

Gorgan va Dasht Animal Feed Co. moves according to “healthy feed, healthy livestock, healthy human, and healthy society” with 30 years of experience. Also, the company tries to have a sustainable improvement of management and labor system with the aim of manufacture high quality products. The company has improved during the recent years consisting of 2 separate companies, 4 production lines with total capacity of 55 tons p/h and consistently insists on using the most modern and best technologies of ready-made animal feed. Since 2009, the company has supplied about 20,000 tons of chick meat in the domestic and international market after establishment of chicken production chain, slaughterhouses, farms of broilers and broiler breeders. The company aims to supply about 40,000 tons of chick meat in the market according to the management plans by 2020.

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Gorgan va Dasht Animal Feed Co.

The first phase of company's development has begun in an area of 27,000 m² by the late former president in 1989. In the primary year, the company could make a remarkable change in the culture of ready-made animal feed consumption modern an equipped German machines and annual production capacity of 100,000 tons of animal feed for stockbreeders of the province and other cities of Iran.

The next step of Gorgan va Dasht Animal Feed Co. was establishment of chicken production chain in 2009.

In this regard, the second phase has been launched for production of ready-made poultry feed with bringing European machines and 42,000 tons of capacities.

Given the sustainable developing trend of Gorgan va Dasht Animal Feed Co. and the developing phases of chicken breeders chain are being completed, and various contracts signed,

led us to establish a new animal feed mill in an individual line and equipped by advanced and modern machineries. Thus, the third phase was established to produce specifically the ready-made poultry feed with an annual capacity of 42,000 tons in 2014; and the total production capacity of the company has been reached from three phases and two lines to 184,000 tons per year.

The main products of the first phase are feed of dairy cattle (in three types of low, middle and super production), beef cattle and sheep.

The second and third phases are established specifically to produce poultry feed in four types of super starter, starter, grower and finisher. Moreover, the company's production formulas and animal feed reaches to over 70 type for various livestock and poultry, dairy and beef cattle ruminants as well as broilers and layers or broiler breeders.

Certificates & Awards

- ◆ The first company obtained IR code from Iran Veterinary Organization in 2013
- ◆ Obtaining international certificate of ISO9001
- ◆ Obtaining international certificate of ISO17025
- ◆ Obtaining international certificate of adornment system 5S
- ◆ Obtaining certificate and status of protect the consumers' right of Golestan Province in 2014 & 2015
- ◆ Selected as the superior industrial company of the province in 2001, 2002, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017 and 2018
- ◆ Selected as the top entrepreneur in 2013
- ◆ Selected as the superior company throughout Iran in 2013
- ◆ Selected as the superior company throughout Iran and obtaining golden sign of top producers of animal feed in 2016 and 2017
- ◆ Selected as the top activist of veterinary among the companies of livestock and poultry feed in 2017 and 2018
- ◆ Selected as the superior company of R & D section of province in 2018
- ◆ Selected as the superior company of the province based on the standards in 2017 and 2018
- ◆ Selected as the superior company of Ministry of Agriculture-Jahad in 2017 and 2018





EFFICIENT & SUSTAINABLE SUPPLY CHAIN



Today, after 69 years Experience:

A manufacturing and Trading Group with 8 Subsidiaries
 More than 1.1 million tones sales in 2016
 More than \$0.6 billion turnover
 More than 100 employees

Core Values Established:
 Customer Orientation,
 Responsiveness,
 Quality Orientation

What Makes Us Unique:
 Reputation, Trust,
 Efficiency &
 Stability Wealth of
 Knowledge

Core Capabilities Developed:
 Market Knowledge,
 Nationwide Distribution,
 Network Access to
 all layers of
 Customers

Estiri Family Business
 Established in 1951

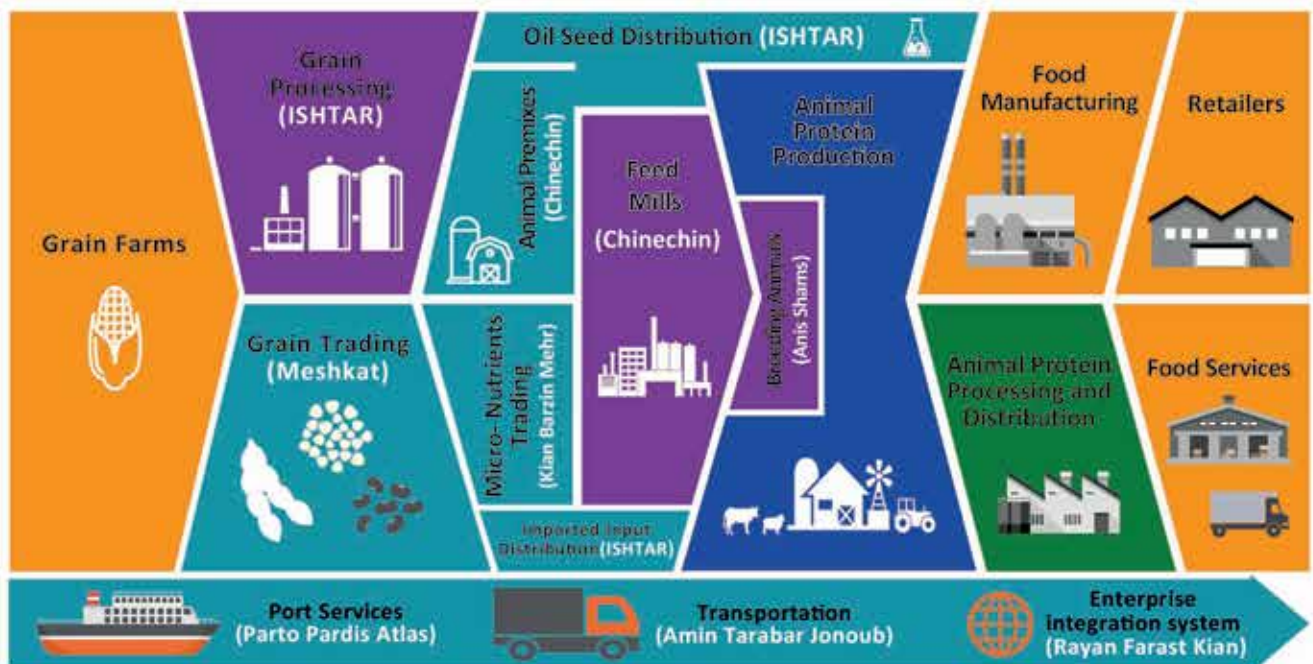
Our Mission

We are a manufacturing and trading company focused on supplying grain and livestock feed, poultry and aquatic products that seek to manage supply chain, promote productivity of industry and create value for society through the promotion of food safety and security.

Our Vision

To be the largest and the most prosperous private corporate for supply and distribution of oil seed and grain in Iran and the neighboring countries in 2022.
 The value of our activities will be in healthy, inexpensive and diverse meals.

OUR ROLE IN THE SUPPLY CHAIN



- Currently running business
- Not in our focus for the next 5 years
- Currently running this business via outsourcing
- Planning to enter the business as an owner within 5 years
- Planning to enter the business as a national business lead-firm within 5 years



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