# **COUNTRY REPORT: IRAN**

# **Country Report of Iran**

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# In the Name of God

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#### 1. Preface and General

Food security is a global problem and needs immediate attention from every nation, I.R.of Iran is trying to address this problem by increasing food production through farm mechanization. Wheat being the staple food of the country is the main focus of mechanization, besides wheat the ministry has programmes for other production.

The goal is to increase the quality and quantity of agricultural production and agricultural mechanization can play the important rule. There is a general sense that the achievement of full mechanization is a primary goal.

The I.R. of Iran comprised of 1648195 Km2, approximately 53.7 per cent of the country generally classified as a pasture, 20. per cent desert and semi-arid, 8.75 per cent forest, the rest of them are agricultural, rural, urban... area is situated on the Iranian plateau, more than half of the country is covered with mountain and highland

The latest statistic in 2005 revealed that Iranian population was 68 million of which 22.8 million lived in rural areas. The amount of rain fall is between the 50 to 2000 millimeters and the mean high of the country is 1200 meters over the sea level. Crop production systems are entirely dependent on topography, seasonal rainfall and supply of water in irrigated areas.

#### 2. Brief objectives and programmes of ministry of Jihad - e – Agriculture:

# **2-1-** Policy – Making, Planning and Supervision

- To make policies and strategies related to agriculture sector, development and construction of rural and tribal regions and to prepare and implement agricultural development plans within the framework policies of sustainable development.
- To carry out reviews and take necessary measures in order to plan production and supply of state needs to agricultural and livestock products and to promote export by observing relative advantages within the scope of state commercial policies.

- To prepare, compile, implement and update rural and agricultural information systems and establish statistical systems.
- To prepare necessary standards and regulations and planning in the field of installations and infrastructure required either in production or by producers of agriculture sector.
- To monitor and evaluate performance and activities of institutes and companies affiliated to ministries and establish necessary planning and operational coordination.
- To monitor and evaluate programmes, plans, activities and action within the scope of duties of Ministry of Jihad-e-Agriculture in order to assess efficiency thereof.

# **B- Research, Training and Extension**

To conduct applied and developmental researches in the following fields:

- Soil and water, seed and seedling improvement, breeding, livestock and aquatics breeding, forest, range, watershed management, plant diseases and insects and methods of elimination thereof.
- To benefit from advanced biotechnology techniques and genetic engineering in agriculture sector, develop suitable methods and apply modern technologies in agricultural and livestock development suitable for climate and geographical conditions of the country.
- To promote productivity, decrease waste, improve quality of production of agricultural products.
- To study and conduct research for agricultural development and promotion thereof in national economy and urban and tribal development.
- To plan and provide scientific-applied and technical-vocational training for employees of agriculture and rural industry sectors within the scope of approved policies and to provide training in modern agricultural and livestock management methods and techniques for related producers.
- To study, design and optimize production and utilization models and systems in agriculture sector and continuous assessment and improvement thereof.
- To plan and provide results and conclusions of conducted researches and studies to employees, producers and users of agriculture sector and to

recognize problems thereof and take action to eliminate thereof by implementing extension programmes.

# C- Natural Resources and Watershed Management Affairs

- To make comprehensive studies and research on basins existing in the country in order to develop watershed management plans and prevent soil erosion and prepare comprehensive plan to use agricultural lands and natural resources and optimal utilization thereof.
- To plan and take actions for prevention of change and conversion of application of agricultural lands and forests.
- To preserve, develop, support and utilize forests and natural and manmade ranges in its correct way, arrange for great forestation plans, forest management, range management, create natural parks, and natural recreational places within the scope of objectives and policies of sustainable development and apply necessary supervision.
- To plan and implement watershed management plans and stabilize dunes and desert sands and combat desertification.

### D- Agricultural Infrastructure & Rural Development Affairs

- To develop mechanization regarding climate and cultural features of different regions and provide necessary supportive and technical services.
- To plan and take necessary actions to protect and improve soil and arrange for better utilization thereof.
- To arrange for promotion of efficiency of irrigation in farms and orchards.
- To plan transfer of water of network 3 and 4 and traditional canals and qanats, distribution and consumption of agricultural water and take necessary actions in order to construct and maintain related installations within the scope of current rules and regulations.

The scope of comprehensive regional plans.

• To develop and support small industries of agriculture sector and rural. industries within the scope of state industrial policies.

#### E- Agricultural, Livestock and Aquatic Affairs

- To plan and take necessary actions in order to promote productivity of agricultural production resources and factors and to achieve planting models suitable for available water resources, production capacities and climate conditions of different regions of country.
- To supervise over and control production, import and consumption of vaccines and other biologic stuffs for livestock consumption.
- To plan, prepare and implement plans related to protection of livestock and poultry resources and breeding and improve livestock foods.

#### F- Supportive Measures.

- To support promotion of investment in agriculture sector and utilize credit
  facilities of Bank Keshavarzi and other bank resources, create funds to support
  development of agriculture sector and complementary industries in
  cooperation with producers, and to provide facilities necessary for providing
  credits required by producers of agriculture sectors.
- To enforce supportive and insurance policies and methods in order to support producers, products and installations of agriculture sector and pay damages to damaged producers based on adopted policies.
- To plan and take adopt supportive and encouraging policies in order to develop and upgrade technology of agricultural machinery and equipment within the scope of approved policies.
- To provide facilities and coordinate promotion of export of products of agriculture sector and rural industries within the scope of state commercial policies and programmes.

### 3. Cultivated Area

During the year 2005-2006 among the total of 15.56 millions hectares of land of I.R. of Iran about 12.96 millions hectares was allocated to annual and perennial crops from which 2.6 millions hectares were under the cultivation of orchard.

It is necessary to note that the agricultural production in I.R. of Iran is seriously affected by ecological conditions and the amount of seasonal precipitation and the amount of irrigation water in irrigated lands.

Table 2 shows the area, the amount of production per unit area, yield of some major crops either in irrigated lands and dryland.

Table 1

Size of Land Holding	<del>2005</del>
Hectares	Number of enjoyment
1 ha and less	1205032
1-5	1319962
5-20	786336
20-50	135649
50 and more	33750

# 4. Status of crop production:

Wheat is of high priority with a total planted area of 6.87 million ha, of which 4.17 million ha is rain fed and 2.70 million ha is irrigated. The second most important crop in terms of area is barley with an area of 1.56 million ha, of which 0.94 million ha is rain fed and 0.62 million ha is irrigated. Of particular interest is the fact that both of these crops have very extensive areas which depend solely on rainfall. The 2008 drought has had a major impact on dryland crop yields and therefore any mechanized intervention which can improve the current situation must have a high priority.

#### **Tea Mechanization:**

The total area of tea production in Iran is rather limited at 34,000 ha. Approximately 70 per cent of the crop is grown on sloping land and this presents particular difficulties for mechanization whilst the economics of tea production are currently marginal with a consumer preference for higher quality imported tea. An improvement in crop yield in the lowlands could be achieved by the expansion of sprinkler irrigation and consideration could also be given to the local manufacture of engine driven tea pruners and harvesters to assist in the reduction of labour costs.

#### **Rice Mechanization:**

The total rice production area in the country is approximately 630,000 ha. Rice is often double cropped and this results in limited land preparation and seeding periods whilst labour costs can be particularly high for transplanting and harvesting. Initially rice mechanization is considered a high priority for MoJA. However the MoJA and cooperative bodies had been extremely active in recent years in the rice mechanization field. With respect to land preparation a number of lightweight tractors had been imported from leading manufacturers in Asia for comparative field evaluation. Various walking type and ride-on type rice transplanters had also been procured as had four types of specialist rice combine harvester, both full feed and head feed type (Claas, Daedong, Kukje and Yanmar). It is therefore clear that the AMDC, particularly in Fars province, has already covered the major rice mechanization constraints in some detail and their field test results can subsequently be extended to other rice growing provinces by means of publications and internal study tours.

### **Olive Mechanization:**

There are reportedly 120,000 ha of olive plantations in Iran, which had comprehensive surface or drip irrigation systems installed. The cost of hand harvesting is the major constraint, as it is in other producing countries, and therefore a number of mechanical shaker/harvesters had been imported by the AMDC for evaluation. These were hand held, tractor mounted and self-propelled types.

#### **Chickpea Mechanization:**

Kermanshah province is the leading producer of chickpeas in Iran and production area in the country is approximately 290,000 ha, the vast majority of which is dependent of rainfall. The size and quality of the chickpeas produced in Iran is highly valued in the region. Chickpeas are often grown in rotation with dryland wheat and barley, and the retention of soil moisture is therefore extremely important. Seedbed preparation is reportedly a problem due to the hard dry soils. Harvesting has also been identified as a major problem for the farmer because of high hand harvesting costs and because the lower pods are located close to the ground making mechanized harvesting difficult. Careful land preparation is therefore very important to ensure a smooth and level seedbed. The research institute of MOJA in Kermanshah have recently developed a purpose built chickpea header for the JD 955 combine harvester. Harvesting losses have been reportedly reduced from 30 percent with the unmodified JD 955 harvester, 7 - 15 percent utilizing hand labour, down to 5 percent utilizing the purpose built chickpea header. Fifty chickpea headers have now been manufactured and it would appear that the chickpea harvesting problem may well have been solved.

#### Wheat and Barley Mechanization:

Wheat and barley are predominately produced under dryland conditions although significant areas are also irrigated. The crops are therefore vulnerable to variations in seasonal rainfall and subsequently soil moisture conservation is extremely important. Significant work has already been undertaken on minimum tillage in Fars province and this practice has subsequently been widely extended to the farmer level.

Reportedly there are already 400 Amazone manufactured minimum tillage implements in Iran of which 300 are located within Fars province. The main benefits are said to be reduced land preparation costs and improved moisture conservation.

Further minimum tillage field trials may be required in order to evaluate alternative machine types and techniques. The local manufacture of minimum tillage equipment is also an important consideration, and it is known that a major Iranian manufacturer is exploring that possibility.

However, to date, little work has been undertaken in Iran on conservation agriculture whereby zero-tillage crop production is undertaken on a continuous basis eliminating any conventional cultivation process. The objectives of this technique are to reduce mechanization costs, increase soil moisture conservation, reduce erosion, and to improve soil structure and biological activity. Zero-till machinery has recently been procured in Iran but to date this equipment is very limited in number. It has been primarily utilized as a minimum tillage option to reduce mechanization costs and conventional cultivation has subsequently been undertaken after only one year. Weed control is an essential component of conservation agriculture practice and therefore particular attention must be paid to weed agronomy and chemical spraying since the weed species change over time.

At present Iran does not have an operational chemical spray testing facility and this matter needs to be addressed with some urgency in view of fundamental human health, chemical residue and crop production cost considerations.

# Other Crop Mechanization Activities (Maize, Soya Bean, Rapeseed, Alfalfa etc.)

The maize mechanization in Iran is very well developed whether it be for grain or forage production. Precision planters, maize headers and self-propelled forage harvesters are widely employed and therefore extensive Soya bean is an interesting crop because it ranks first in terms of import value and therefore consideration might be given to expanding its production area in Iran in the future. Soya bean production technology is well known and the appropriate machinery is available in Iran for the complete mechanization of the crop. Rapeseed and alfalfa are similarly fully mechanized.

Table 2: crop production 2006

Cultivated Ar	rea (ha)			Production (to	on)		Yield (kg	)
Crop	Irrig.	Rainfed	Total	Irrig.	Rainfed	Total	Irrig.	Rainfe
Wheat	2706995.6	4171923	6878918.6	10137769.86	4525975.46	14663745.32	3745.03	1084.87
Barley	624491.2	942963.2	1567454.4	1972399.14	983632.79	2956031.93	3158.41	1043.13
Rice	630561.9	0	630561.9	2612174.34	0	2612174.34	4142.61	0
Maize	291763	84.5	291847.5	2165878.92	251.21	2166130.13	7423.42	2972.91
Chickpea	13743	588814	602557	16159.25	308626.85	324786.1	1175.82	524.15
Beans	92980.8	4328.9	97309.7	202377.26	5908.45	208285.71	2176.55	1364.88
Lentil	13377.5	195689.5	209067	16663.13	84120.95	100784.08	1245.61	429.87
Other	26405.3	5473.5	31878.8	39294.49	4707.62	44002.11	1488.13	860.07
Pulses	20403.3	34/3.3	310/0.0	39294.49	4/0/.02	44002.11	1400.13	800.07
Cotton	113345	3215	116560	279337.56	4335.78	283673.34	2464.49	1348.61
Tobacco	6944.6	4929	11873.6	11691.37	3787.82	15479.19	1683.52	768.48
Sugar beet	185887.8	0	185887.8	6709112.47	0	6709112.47	36092.27	0
Cane	66549	29	66578	4958866.53	524.41	4959390.94	74514.52	18083.2
Soybean	61100	20674.5	81774.5	149663.65	35303.63	184967.28	2449.49	1707.59
Rapeseed	74010.2	87034.8	161045	149925.12	165164.66	315089.78	2025.74	1897.69
Other	65831.7	22662	88493.7	88867.31	26118.44	114985.75	1349.92	1152.52
Oilseeds	03031.7	22002	00493.7	00007.31	20110.44	114903.73	1349.92	1132.32
Potato	159874.9	3968.6	163843.5	4188207	30314.64	4218521.64	26196.78	7638.62
Onion	55366.9	3880.4	59247.3	1993028.28	45334.93	2038363.21	35996.75	11683.0
Tomato	146836.9	624.9	147461.8	5054829.9	9741.34	5064571.24	34424.79	15588.6
Other	93843	18499.1	112342.1	2242823.71	225541.18	2468364.89	23899.74	12192.0
Vegetables	73043	10477.1	112342.1	2242023.71	223341.10	2400304.09	23099.14	12192.(
Melon	75898.6	2299	78197.6	1356452.18	10897.56	1367349.74	17871.9	4740.13
Watermelon	95717.7	23378.5	119096.2	2719320.29	147003.26	2866323.55	28409.8	6287.97
Cucumber	81562.2	787.9	82350.1	1933975.3	4515.82	1938491.12	23711.66	5731.46
Other								
Ground	39321.2	2578	41899.2	643139.49	9393.78	652533.27	16356.05	3643.82
Crops								
Alfalfa	583263.4	55207.5	638470.9	5063195.28	110166.19	5173361.47	8680.8	1995.49

Clover	54005.5	17696	71701.5	630268.88	462301.42	1092570.3	11670.46	26124.6
Other								
Forage	265298.2	48193	313491.2	8450753.77	97218.2	8547971.97	31853.79	2017.27
Plants								
Other crops	82827	28429	111256	172228.28	5422.08	177650.36	2079.37	190.72

# 6. Ministries, Institutes, Organizations relevant to Agricultural Machinery

#### 1- Ministry of Industries and Mines:

This ministry is in charge of issuance of establishment permits production license as well as determining the production capacity of the industrial units.

# 2- Ministry of Jihad-e- Agriculture:

This ministry plays a very important and significant role in the agricultural machinery and mechanization aspects. Different institutes are under this ministry and their duties are as follows:

### A) Agricultural Mechanization Development Center (AMDC)

Agricultural mechanization is a vital factor in promoting quality and quantity of agricultural production, has a very important share in nutritional health, such that it has always been considered in macro programmes of agricultural sector by planners of sub-sectors like agronomy, horticulture, forest and pasture, livestock affairs, aquatics and researches.

Considering the importance and role of agricultural mechanization, the Ministry of Jihad-e- Agriculture has indicated a central authority that could be active in mechanization development. The agricultural mechanization development center is under the Soil, Water & Industries affairs deputy, ministry of Jihad-e- Agriculture and some duties of this center are as follows:

- Study, survey and determining appropriate technology in all phases of production of the agronomic, horticulture, husbandry suitable with the climatic condition of different part of the country.
- Decisions and necessary policies for better utilization of farming machines and equipments in the mechanization programmes.
- Support the artisans to make the prototypes of machines and equipments and increase performing the applied tests on them with recommendation for removing possible defect or modification.

- Support and guidance of private sector toward transfer of suitable technology, design and fabrication of agricultural machines and equipment.
- follow up and continues supervision on the execution and implementation of the scheduled plans for development of mechanization together with appropriate utilization of the technology.
- To manage information system in agricultural mechanization development and using IT.
- To compile regulations and standards relevant to equipment and machinery required in agricultural sector, Agricultural mechanization development center has cooperated with an institute of standard and industrial research for exchange of technical information for compiling the agricultural machinery and equipment standards codes on the testing of agricultural machinery. Test and evaluation index and standards has published national wide for the guidance, not only for manufacturer but also for farmers and concerns agencies.

At present about 170 subjects of agricultural machinery and equipment have compiled national standards in the field of tractor, land preparation, sowing and planting, irrigation, harvesting, forage ,pumps and some parts.

### Fabrication of primary samples (Prototypes) of agricultural machinery Project

This project aims to fabricate primary samples of suitable agricultural machinery compatible with state climate, social and technological conditions for the purpose of supporting domestic fabrication and localization. The Agricultural Mechanization Development Center moves forward by directing finance and technical support for craftsman and innovators to make primary samples.

# Supporting and supervision of mechanization service units Project

This project aims to promote productivity of agricultural machinery and equipment existing in the country and takes into consideration the great numbers of users and shortage of agricultural machinery. In fact establishment of mechanization service units to offer mechanized services to farmers without machinery is one of the main solutions for mechanization development on the state level, since it is possible only in this way to provide a complete set of agricultural machinery and equipment in the suitable region and move beyond those professional who have one or two

machines. AMDC is seeking to facilitate affairs related to them to increase number of service units and machines.

# Development and supporting of Agricultural machinery and equipment Project

The main aim of this project is to introduce suitable modern technology of agricultural machinery and equipment as a sample and operate in pilot projects through different parts of the country. In the case of the machine or equipment successful application will be extended by extension agencies.

The following agricultural machinery which are as a samples allocated and provided recently through agricultural mechanization development center.

Table: 3 Agricultural Machinery for pilot projects 2008

	peanut harvester	onion harvester
E	almond Shell husker	cereals harvester
	potato combine	date harvester
ii	conservation of agr. machinery	shakers
	vegetable transplanter	grafter
Ī	vegetable harvester	walnut shell husker(green )
e	blower machine	aquatic equipment (oxygen dis.)
a	fish pump	sheep sharing equ.
ii	apple &orange harvester	direct seeding machine

#### 3- Agricultural Bank

Agricultural Bank is a financial source, it supplies loans to purchasers of agricultural machinery. To support purchasers of agricultural machinery, agricultural mechanization development center has taken action to supply and allocate subsidy aids and provide technical and credit aids and facilities to applicants of agricultural machinery. It should mentioned that part of these facilities is granted as a share of the bank to support the purchaser of agricultural machinery in coordination and under supervision of this center.

#### 4- Scientific and Industrial research Institute of Iran

This institute absorbs the experts of different fields and also encourages and supports innovation plans.

# 5- Ministry of Commerce

This ministry has a very important and significant role in the field of import and export of agricultural machinery.

# 6- Universities

State universities have developed their own capability in specialized agricultural engineering R & D in the field of agricultural machinery and equipments, such as instruction, research, design and fabrication.

#### 5. Extension of Agricultural. Machinery

Short term training for farmers continues to be done through the department of extension of ministry of Jihad-e- agriculture. The following table shows the number of trainees and courses which were held during year 2007 in different provinces through demonstration and practice.

Table: 4

No	Subject	Trainees	No. of Courses
1	Tractors, Repair and	1681	79
	maintenance		
2	Pumps, Repair and maintenance	405	19
3	Pressurized irrigation	2287	105
4	Agr. Equipment	1238	60

#### 6. The Outline of Food and Post-Harvest Industries Status

Food and Post harvest industries in Iran is divided in two sections, Industrial and Rural. The activities concerned to the industrial section are under the management of the Ministry of Industries & Mines and the sector of rural industries and small scale of post-harvest of agricultural product are under the management of soil, water & industries affairs deputy of the ministry of Jihad-e- Agriculture. The deputy through a plan of establishing and completing of rural industrial regions has taken steps to develop and concentrate the rural industries.

Table: 5 From 2006

No	Type of activities		Licence	Exploitation	Production
			Issue		capacity(1000)
1		Dairy		292	2285477
	Dairy	products			
	&	Slaughter		30	248805
	Meat production	houses			
;		Meats	3171	52	98205
		packing			
ļ		Fish		37	99992
		processing			
5		Fish cans		25	46265
6		Fish food		23	33775
7	orchard	Dates		55	81000
	production	packing			
3		Olives	4000	15	31582
		packing			
)		Corns		70	678380
0		packing			
	Agriculture		4392		
1	production	Vinegars		38	28055
12		Pickles		41	45590
3		Potatoes		8	32730
		processing			

#### 7. Local Manufacturers

There are many small and medium sized workshops spread all over the country. These workshops are doing design, reverse engineering and manufacturing equipment and spare parts of all kind of agricultural machinery. Beside these workshops there are some large manufacturers which produce power sources.

Policy of open market and privatization is done regarding import, marketing and utilization of agricultural machinery and equipments in the country. Following figures shows major products which are fabricated locally.

#### i Power Sources

- Tractors - Power tillers(walking tractor)

-Combine harvesters

### ii Land Preparations

- Mould board plows - Chisel plows

- Cultivators Rotarys- Harrows - Ridgers

- Ditchers - Levellers

- Loaders - Furrowers

#### iii Seeders and Planters

- Planters - Seed drills

- Transplanters - Deep seed drills

#### iv Fodders and Tuber harvesters

- Mowers - Choppers

- Hay rakes - Balers

- Potato diggers - Sugar beets

- Sugar beet toppers

### v Plant Protection

- Knapsack sprayers - Boom sprayers

- Mist blowers - Lances - Sprayer pump

# vi Animal Production eq.

- Milking machines Poultry feeders
  - Chillers

# vii Irrigation eq.

- Pumps Sprinklers
- Pipes drippers
- Center pivots wheel moves

# viii Post harvest eq. and others

- Cleaners Threshers
- Rice whitening Trailers
- Dryers Oil expellers
- Milling

Table 6: Types and quantity of power sources - 2007

No	Machine name/ Model	Quantity
1	Tractors up to 45 hp	15522
2	Tractors 45-80hp	270633
3	Tractors 80-110 hp	18250
4	Tractors 110 and more hp	3536
5	Total Tractors	307941
6	Combine harvesters	10852
7	Reapers	15266
8	Power tillers 4.5 hp	9410
9	Power tillers 7.5 hp	25637
10	Power tillers 9 hp	4766
11	Power tillers 13 hp	5729
12	Total power tillers	45542

Table 7: Types and quantity of Irrigation pumps- 2007

No	Machine name/ Model	Quantity
1	Eng. Pumps up to 20 hp	94941
2	Eng. Pumps 20-40 hp	39749
3	Eng. Pumps 40-100hp	38404
4	Eng. Pumps 100 and more hp	12740
5	Total	185834
6	Ele. Pumps up to 20 hp	35797
7	Ele. Pumps 20-40 hp	35221
8	Ele. Pumps 40-100 hp	36021
9	Ele. Pumps 100 and more hp	15213
10	Total	122252

Table 8: Types and quantity of Equipments - 2007

No	Machine name/ Model	Quantity
1	Mold board plows	254584
2	Chisel plows	30792
3	Disk plows	4548
4	Rotarys	7692
5	Puddlers	92
6	Disk harrows	112372
7	Rotary tillers(harrow)	1740
8	Sub-Soilers	2241
9	Land levelers	28080
10	Ditchers	37778
11	Ridgers	43577
12	Cultivators	35573
13	Furrowers	29680
14	Land preparation	642
15	Augers (post hole digger)	1369
16	Choppers- self.	126
17	Rotary cultivators (Combination)	623
18	Fertilizer dis.	47870
19	Row Fertilizer dis .	1798
20	Animal fertilizer dis.	566

# **Types and quantity of Equipments - 2007**

No	Machine name/ Model	Quantity
21	Seed drill cum fertilizers	1734
22	Seed drills	8314
23	Deep seed drills	12593
24	Row crop planters (Mechanical)	3983
25	Row crop planters(Pneumatic)	1537
26	Semi-automatic potato planters	3288
27	Automatic potato planters	2519
28	Rice transplanters	1032
29	Tea pruners	
30	Tractor mounted sprayers (boom)	25616
31	Tractor mounted sprayers (Lance)	17974
32	Turbine sprayers	2735
33	Power sprayers	69089
34	Wheel barrow sprayers	29057
35	Rakes	4251
36	Balers	5050
37	Choppers	1248
38	Potato diggers	4680
39	Sugar beet diggers	8840
40	Trailers	163124

# Types and quantity of equipments - 2007

No	Machine name/ Model	Quantity
41	Corn heads	1338
42	Sun-flower heads	213
43	Tea harvesters	3723
44	Thresher-cum-cleaners	25392
45	Threshers	37965
46	Sugar beets (combine)	63
47	Cleaners	1160
48	Rice huskers	2886
49	Threshers (Rice)	2430
50	Whitening (Rice)	5072
51	Movers	7113
52	Shakers	72
53	Sheep shearing	7694
54	Beehives	1706019
55	Poultry feeders	30990
56	Feeder mixers	1134
57	Chillers	4589
58	Fish feeders	147
59	Fish sorters	187
60	Milking machine	24065
61	Dryers	10232

# 8- Information Dissemination of Agricultural Mechanization

The main objective of this activity is to extend information about agricultural mechanization and relevant matters by AMDC through the web site, Ministry of Jihad-e-Agriculture also has different activities for information dissemination through the production of print and audio / video / web site materials. Several magazines and newsletter published through the private sectors in the field of agricultural mechanization and relevant technology.

**Table 9: National &International Exhibitions** 

No	Subject	Location	Date
1	Agricultural Machinery	Fars province	Feb 2008
2	Agricultural Machinery, Live stock,	Isfahan province	Jan 2008
3	Agricultural Machinery and Irrigation ep.	Karaj city	Sep. 2008
4	Agricultural Machinery	Mashhad Province	Nov.2008
5	Agricultural Machinery and Irrigation ep	Markazi Province	Nov.2007
6	Live stock , Agricultural Machinery	Kermanshah pro.	Dec.2007
7	Food processing , Agricultural Machinery	Tehran Province	Oct. 2007
8	Agricultural Machinery	Mazandaran Province	Feb. 2007
9	Agricultural Machinery Aquatic and	Fars province	Oct. 2007
	livestock		

