Presidency Islamic Republic of Iran Plan and Budget Organization Statistical Centre of Iran

# Selected Results of Crop Survey, the Year 1397<sup>1</sup>

<sup>&</sup>lt;sup>1</sup>. Iranian year. For more information, please see the next pages

# IN THE NAME OF ALLAH, THE COMPASSIONATE, THE MERCIFUL

Verily, He has counted all creatures and He Knows their exact number.

#### **Holy Quran**

Sura Maryam, Verse 94

## Symbols:

- Not collected

000 Not available

× Not applicable

**xx** Not calculable

// Negligible

\* Provisional

\*\* Estimated figure

**O** Not for publication (confidential figure)

Where figures are rounded, discrepancies may occur between sums of the components and the total. All ratios and indices were calculated before rounding.

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Selected Results of Crop Survey, the Year 1397	

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#### **Foreword**

The crops growing activity is one of the main sub-divisions of agricultural sector which accounts for 50 percent of value added of this sector. The study stage of the survey on crops growing activity aimed at estimating of the cultivation area, production of major annual crops and also the needed statistics for compiling national accounts started in the year 1396. The Crop Survey, based on the frame of the National Agriculture Census conducted in the year 1393, was implemented in the autumn of the year 1397. The present publication includes the selected results of the mentioned Survey released at the national and provincial levels.

The Statistical Centre of Iran (SCI) expresses its appreciation to all staff in the Provincial Deputy for Statistics and Information of the Management and Planning Organization in the country who had sincere and great cooperation in the successful implementation of this survey.

We hope the provided information could prove useful to decision makers, planners and researchers and the SCI can take effective steps in providing and disseminating needed statistical information by using their valuable comments.

Statistical Centre of Iran

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#### Introduction

In order to meet the statistical needs of planners in the agricultural sector, conducting sample surveys between Censuses of Agriculture has been one of the programs of the SCI since its establishment. In this line, the Crop Survey was jointly conducted by the SCI and 31 Provincial Management and Planning Organizations for 22 days in the month of Azar of the year 1397 in order to cover the holdings with crop growing activities. In this Survey, various information on the holdings with crop growing activities, area of the arable lands (by under cultivation and fallow/irrigated and rain-fed) and production of annual crops for the crop year 1396-97 was collected. Better understanding and use of data provided in this publication involves knowing the technical terms, definitions, and executive ways used in conducting the Survey. Since most of the used definitions and terms in this publication are only for this statistical survey and may be different from the common understanding of the public; accordingly, the users may have their own understandings if they do not pay attention to the definitions and concepts. Thus, the users are recommended studying the definitions and concepts included in this publication before going through the information.

## **Important notes**

In order to decrease the costs of conducting the survey by reducing the number of samples, it is decided that the statistics on the most important annual crops with great shares in the area of cultivation and production are collected and disseminated by name of crop and other annual crops under the title of "other annual crops". Moreover, for each of crops excluding rice (paddy) and sugar beet, the statistics related to the area of cultivation and production of crops by irrigation or rain-fed method were collected. The concerned crops in this survey include wheat, barely, rice (paddy), grain corn, beans (dry), peas (dry), cotton (seed cotton), sugar beet, rapeseed cucumber, watermelon, melon, honeydew, cantaloupe, wild muskmelon, alfalfa, forage and poaceae corn, potato, onion, tomato, carrot, radish, turnip, other vegetables, and saffron.

- In this survey, a large amount of information has been collected on the holdings with crops growing activities, area of arable lands (by under cultivation, fallow / rain-fed and irrigated), and annual crops production for the crop year 1396-97
- In order to predict the area of cultivation and annual crops production, the questions on the cultivation area of the crops which are sown in the Crop year 1397-98 have been asked.
- The crop year 1396-97 is from the first day of month of Mehr<sup>2</sup>, the year 1396 to thirty first of the month of Shahrivar, the year 1397<sup>3</sup>.
- The Crop year 1397-98 is from the first day of month of Mehr, the year 1397 to thirty first of the month of Shahrivar, the year 1398.
- With respect to the implementation date of the mentioned Survey (the month of Azar, the year 1397 (22 November- 21 December 2018), the decrease in the cultivation area resulting from the flood in the spring of the year 1398, was not considered in the prediction of cultivation area of annual crops.

#### <sup>2</sup>. Iranian months and their equivalent in Gregorian calendar

Farvardin (21 March-20April) Ordibehesht (21 April-21 May) Khordad (22 May-21 June) Tir (22 June-22 July) Mordad (23 July-22 August) Shahrivar (23 August-22 September) Mehr (23 September-22 October) Aban (23 October-21 November) Azar (22 November-21 December) Dey (22 December-20 January) Bahman (21 January-19 February) Esfand (20 February-20 March)

<sup>&</sup>lt;sup>3</sup> . It is the Iranian year which usually begins on the day of 21 March of the Gregorian calendar. To find the corresponding year of the Gregorian calendar, add 621 or 622 (depending on the time of the year) to a <u>solar Hijri</u> year. For example the corresponding year of the year 1398 in the Gregorian calendar is (21 March 2019-19 March 2020).

## General specifications of the survey

#### **Overall Objectives of survey**

The overall objective of the Crop Survey is to estimate the statistical information on crops growing activities at national and provincial levels for a specified statistical time.

#### **Target population**

The target population in this survey includes all the agricultural holdings in urban and rural areas (belonging to private settled household, unsettled holders, authorized companies and public institutions) in the year 1397 which exercise a crops growing activity<sup>4</sup> on the time of enumeration.

#### Statistical population

In this survey, statistical population includes all the agricultural holdings in urban and rural areas (belonging to private settled household, unsettled holders, authorized companies and public institutions) in the year 1397 which exercise a crops growing activity based on the information of the 2014 National Census of Agriculture.

#### Statistical unit

In this survey, statistical unit is an agricultural holding with a crop growing activity in urban and rural areas (belonging to private settled household, unsettled holders, authorized companies and public institutions) in the year 1397.

#### Statistical date

The statistical date for some part of items has been the time of enumeration and for other items, it has been the crop year 1396-97 or the Crop year 1397-98 .

#### Survey date

The survey date was from 1 to 27 of the month of Azar, the year 1397 (22 November to 18 December, 2018).

#### Survey method

The survey was conducted by sample method.

<sup>&</sup>lt;sup>4</sup> When an agricultural holder has a crops growing activity, he or she has at least 400 square meters arable lands.

#### Data collection method

In this Survey, the information was collected as follows:

- The information on the households of the settled holders was collected through face-to-face interview with the holder or one informed member of the household.
- The information on private unsettled holders was collected via face-to-face interview with the holder or local informed people;
- The information on the authorized companies and public institutions was collected via Face-to-face interview with the manager of the company or informed person.

#### Level of estimations

Estimations are made at national and provincial levels.

#### **Concerned parameters**

The concerned parameters in this survey are as follows:

- The total number of holdings with the crop growing activity
- Total area of national arable lands on the time of enumeration and in the crop year 1396-97
- Cultivation area of crops by type of rain-fed/irrigated method for the crop year 1396-97 and the Crop year 1397-98

#### Sampling frame

In order to select samples of this survey, the frame of the National Census of Agriculture conducted in the year 1393 was used. The sampling units of the first stage (city/village) and the sampling units of the second stage (holder with a crop growing activity) were selected separately in a two-staged process from this frame.

#### Sampling unit

In this survey the sampling unit in the first stage was the city/village with at least one holder with a crops growing activity and the sampling unit in the second stage was a holder with a crops growing activity in the sample city/village.

#### Sampling method

In this survey, the method of "stratified two-stage sampling" was used. The sampling units at the first stage in every province were stratified on the basis of the "total area of arable lands" variable. In order to stratify the cities/villages, the cities/villages in which the number of the mentioned variables was more than one determined criterion, they have been put in the census class. Other cities/villages were partitioned into 7 strata based on the "total area of arable lands" variable and by using the stratification method of Dalenius. The large holders with crop growing activity in the sample cities/villages were enumerated and one sample from the small holders with crop growing activity was selected by systematic method.

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#### Method for determining sample size

In order to determine the sample size, with respect to the stratified two-stage sampling method, a number of 4994 cities/villages and 54028 holders with crop growing activity were considered as the sample size of the first and second stages of this survey, respectively after estimating relative error for estimation of concerned parameters resulted from samples with different sizes.

#### **Estimates**

Intended parameters at national and provincial levels were estimated after being weighted by using appropriate formula and their coefficients of variation were calculated for each of them.

## **Definitions and concepts**

### Agricultural activities:

Agricultural activities covered in the National Census of Agriculture conducted in the year 1393 are activities related to annual crops growing (temporary crops), permanent crops, greenhouse production, animal husbandry (livestock raising), traditional raising of poultry, raising of honeybees (apiculture), raising of silkworms (sericulture) and fisheries. In this survey, just livestock was enumerated.

#### **Crop growing activities:**

In this survey, crop growing activities refers to the cultivation of annual crops in the open air or temporary covered space in the arable land or among orchard trees.

#### Annual crops:

Refer to different types of crops which are herbaceous plants with the life cycle of less than one year. These crops are sown and harvested for the production in the next period. Crops such as alfalfa, saffron and sugar cane whose subterranean organs remain in the earth and regrow for the next year fall in this group.

#### Agricultural holding:

An economic production unit including one or more agricultural activities within specific geographical limits (villages or cities) run by a single natural or legal unit management.

#### Holding with annual crop growing activity:

In this survey, every holding with at least 400 square meters of arable land at the time of enumeration is regarded as "holding with annual crops growing activity".

#### Household:

persons living together in one residence, sharing their living expenses and eating together constitute a household. There is no need for kinship relationship among the members of a household. A person living alone also forms a household.

#### Private and joint holding

Private holding is a kind of holding which is run by members of a household or a holder under a single management of natural persons. Joint holding is managed jointly by two or more holders who are not members of a household and lacks legal entity.

#### Private settled household

A household with crops growing activity who has a private holding within the limit of its permanent residence in the village or city. This kind of household has a private holding or cooperate with other households in the management of one or more holdings.

#### Unsettled holder:

Natural persons whose residences has been different from the city or village in which they have holding with crops growing activity regardless that they have crops growing activity in their village or city of residence. It is obvious that if these holders have a crops growing activity in their village or city of residence, they have been put in the private settled households (holder) group.

#### Authorized company, public institution:

All authorized companies or public institutions (legal persons) with a crops growing activity are put in this group and if an authorized company or a public institution has been in the samples index, it has been enumerated.

### Holder with annual crops growing activity:

The natural or legal person who personally or jointly manages the economic and technical affairs of the holding and is directly involved in the economic loss and profits of the holding.

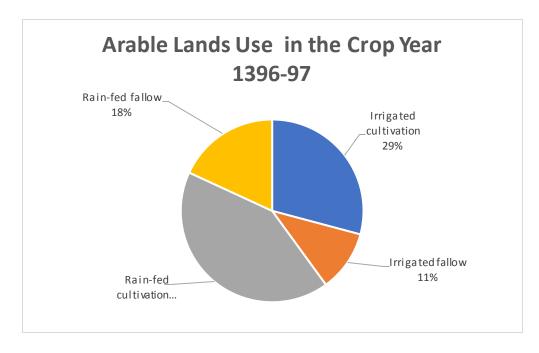
#### Household with annual crops growing activity:

Is a household whose at least one member has an annual crops growing activity based on the determined criteria on the enumeration day.

## **Important findings**

### Area of arable land in the crop year 1396-97

• According to the results of the Crop Survey, the area of arable lands in the crop year 1396-97 was estimated more than 15.5 million hectares out of which 11 million hectares were under cultivation of annual crops and 4.5 million hectares were fallow lands. The area of irrigated arable lands was estimated at 6.2 million hectares out of which 4.5 million hectares were under cultivation and 1.7 million hectares were fallow. Moreover, the area of rain-fed arable lands was estimated at 9.3 million hectares out of which 6.5 million hectares were under cultivation and 2.8 million hectares were fallow.



• According to the results of this Survey, more than 50 percent of the arable lands in the country are located in the provinces of Khorasan-e-Razavi, Khuzestan, East Azarbayejan, Kordestan, Hamedan, Zanjan, and Fars.

#### Area of cultivation and production of annual crops

In the crop year 1396-97, the cultivation area of annual<sup>5</sup> crops was 11.4 million hectares and the total production was 63.9 million tons. More than 85 percent of the cultivation area of the annual crops was for wheat, barely, peas (dry), alfalfa, and rice (paddy).

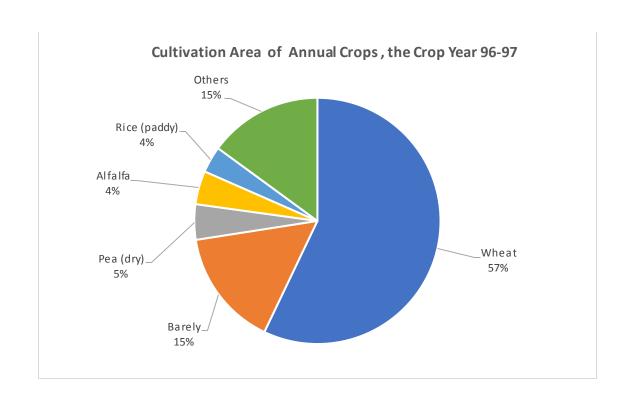
<sup>&</sup>lt;sup>5.</sup> Including replanting and planting under tree.

The results of this Survey shows that in the crop year 1396-97, the cultivation of crops in the 363 thousand hectares of the country's arable lands was replanting and planting under trees.

A. Cultivation Area of Major Annual Crops - Crop year 1396-97

(hectares)

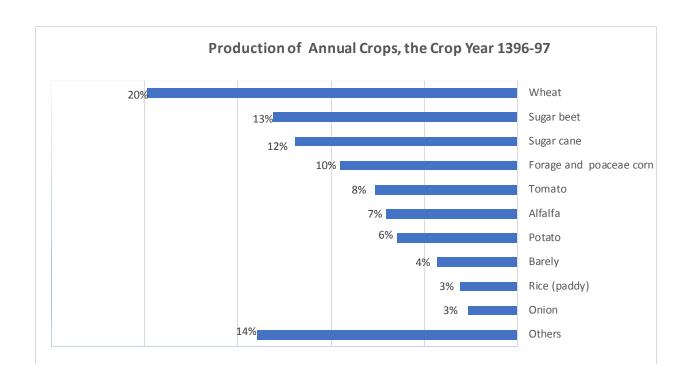
Crop	Cultivation area
Total	11431940
Wheat	6526587
Barely	1765538
Peas (dry)	531431
Alfalfa	502759
Rice (paddy)	396877
Others	1708748



B. The Production of Major Annual Crops - Crop year 1396-97

(tons)

Crop	Production
Total	63874497
Wheat	12704746
Sugar beet	8388452
Sugar cane	7631923
Forage and poaceae corn	6089927
Tomato	4894956
Alfalfa	4502999
Potato	4117462
Barely	2746678
Rice (paddy)	1956281
Onion	1700943
Others	9140129



In this Survey, in order to predict the production of annual crops, the cultivation area of the crops cultivated in the Crop year 1397-98, was also asked. Accordingly, it is predicted that the cultivation area of annual crops in the Crop year 1397-98 will increase one percent in comparison with the crop year 1396-97.

The results of this Survey shows although it is predicted that in the "rapesees" will increase compared to the crop year 1396-97, the cultivation area of crops such as "potato", "beet sugar", "carrot", "radish and turnip" and "onion" will decrease.

#### Wheat

The results of this Survey indicate that about 57 percent of the arable lands in the country are under cultivation of wheat. The cultivation area of wheat in the crop year 1396-97 was more than 6.5 million hectares with the he production of 12.7 million tons. It is predicted that the cultivation area of wheat in the Crop year 1397-98 increases by 6.7 million hectares. With a 2.4 percent rise in the cultivation area of wheat in the crop year 1397-98, it is expected that the production of this strategic product increase, too.

#### • Barely

The cultivation area of barely in the crop year 1396-97 was about 1.8 million hectares with the production of 2.7 million tons. It is predicted that the cultivation area of barely in the Crop year 1397-98 increase to 1.9 million hectares.

#### • Rice (paddy)

The cultivation area of rice (paddy) in the crop year 1396-97 was more than 396 thousand hectares with the production of 1.9 million tons. It is predicted that the cultivation area of rice (paddy) in the Crop year 1397-98 reach 427 thousand hectares with a 7.7 percent rise.

#### rapeseed

The cultivation area of rapeseed in the crop year 1396-97 was more than 157 thousand hectares with the production of 351 thousand tons. It is predicted that the cultivation area of rapeseed in the Crop year 1397-98 increase to 190 thousand hectares which shows a 20.6 percent rise in comparison with the previous crop year.

#### Onion

The cultivation area of onion in the crop year 1396-97 was more than 45 thousand hectares with the production of 1.7 million tons. It is predicted that the cultivation area of this crop in the Crop year 1397-98 decrease to 41 thousand hectares which shows a 11 percent fall in comparison with the crop year 1396-97.

#### • Potato

The cultivation area of potato in the crop year 1396-97 was more than 122 thousand hectares with the production of 4.1 million tons. It is predicted that the cultivation area of potato in the Crop year 1397-98 with a 13 percent drop reach 106 thousand hectares in comparison with the previous crop year.

C. Changes trends in national arable lands area

(hectare-percent)

Year	Total arable		y rain-fed and method	Arable lands by under cultivation and fallow		
Tear	lands	Irrigated	Irrigated Rain-fed		Fallow	
1367	15660349	41	59	66	34	
1382	16197169	43	57	72	28	
1393	14687053	41	59	76	24	
1397	15580741	40	60	71	29	

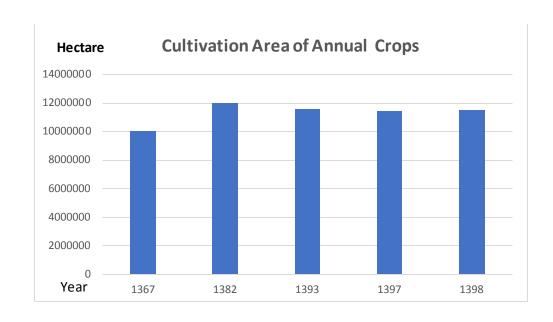
Source: For the years 1367, 1382, and 1393; The National Agriculture Census

For the year 1397; Crop Survey conducted by the Statistical Centre of Iran.

D. Changes trend in the cultivation area of annual crops (hectares)

Vaca	Annua	l crops	Wheat		Bar	rely	Rice (paddy)	
Year	Irrigated	Rain-fed	Irrigated	Rain-fed	Irrigated	Rain-fed	Irrigated	Rain-fed
1367	4457884	5572054	1782701	3554944	818354	1281394	436122	0
1382	5432778	6568295	2427916	4513370	606165	1211407	465453	0
1393	5214238	6374685	2068972	4406672	655179	1415113	383013	0
1397	4851048	6580893	1975411	4551176	545323	1220215	396877	0
1398	4805092	6719531	1966587	4718035	587447	1282948	427373	0

Source: For the years 1367, 1382, and 1393; Statistical Centre of Iran, the National Agriculture Census, For the year 1397, Crop Survey conducted by the SCI



## E. Changes trend in annual crops production

(ton)

Year	Total crops		Wheat		Barely		Rice (paddy)	
ı ear	Irrigated	Rain-fed	Irrigated	Rain-fed	Irrigated	Rain-fed	Irrigated	Rain-fed
1367	-	-	3267355	2508073	1611868	977944	1227325	0
1382	33711099	5873115	7511968	4164284	1624515	1007176	1819990	0
1397	56290280	7584217	7010441	5694305	1470132	1276546	1956281	0

Source: For the years 1367 and 1382; Statistical Centre of Iran, the National Agriculture Census, For the year 1397, Crop Survey conducted by the SCI

## **Statistical Tables**

1. Number and area of holdings with arable lands by province: Crop year 1396-97 (Holding-hectare)

	1		(Holding-hectare)				
Province	To	otal	Under C	ultivation	Fallow		
Tiovince	Number	Area	Number	Area	Number	Area	
Total country	2369143	15580741	2245231	11069229	880976	4511512	
East Azarbayejan	152276	1302609	142512	821208	95645	481401	
West Azarbayejan	136907	723374	131991	639787	19050	83587	
Ardebil	84795	768814	82352	562354	31847	206460	
Esfahan	97161	340692	80477	197671	65840	143020	
Alborz	5145	43475	5005	37867	1026	5608	
Ilam	49020	266213	47386	227789	10908	38425	
Bushehr	20814	271408	18381	205536	5531	65872	
Tehran	17009	124606	16433	103666	4143	20940	
Chaharmahal & Bakhtiyari	44756	185328	43362	141819	12840	43509	
South Khorasan	35175	130851	32423	51027	28321	79824	
Khorasan-e-Razavi	194267	1538554	186021	877052	132294	661502	
North Khorasan	54226	412052	48705	228119	31705	183933	
Khuzestan	103070	1391474	97188	1166674	18636	224800	
Zanjan	49580	856946	48394	522532	33482	334415	
Semnan	23382	140240	22562	82478	11706	57762	
Sistan & Baluchestan	65482	231922	49922	134615	34187	97308	
Fars	114667	849911	104251	588466	52783	261445	
Qazvin	35672	493308	31178	311093	24206	182215	
Qom	3321	33359	3209	22248	1934	11111	
Kordestan	84180	933976	81186	646232	40975	287744	
Kerman	77613	413722	77612	161826	55693	251896	
Kermanshah	96296	688621	93602	655614	9278	33006	
Kohgiluyeh & Boyerahmad	50276	182546	44206	125751	21215	56795	
Golestan	86842	539386	86465	532186	1338	7201	
Gilan	209236	161287	207508	155426	7787	5861	
Lorestan	117615	672573	113187	586080	19155	86493	
Mazandaran	190580	230633	187564	216179	11188	14453	
Markazi	48052	605016	47103	365132	32136	239884	
Hormozgan	14735	88985	14735	73263	2115	15722	
Hamedan	79042	923755	75486	610394	45970	313362	
Yazd	27950	35105	24825	19146	18043	15958	

## Selected Results of Crop Survey, the Year 1397

## 2. Number of holdings, cultivation area, and annual crops production by province: Crop year 1396-97 (holding-hectare-ton)

	Total				Irrigated			Rain-fed	ctare-ton)
Province	Number	Cultivation area	Production	Number	Cultivation area	Production	Number	Cultivation area	Production
Total country	2248129	11431940	63874497	1594525	4851048	56290280	1077659	6580893	7584217
East Azarbayejan	142980	835902	2083325	83330	206634	1234722	102453	629268	848603
West Azarbayejan	131991	640744	3445928	90656	206883	2862271	62550	433861	583657
Ardebil	82352	569053	2245701	46376	230141	1879079	56721	338912	366622
Esfahan	80572	207768	1818936	74539	141589	1761321	14011	66179	57616
Alborz	5005	46519	857006	4883	39467	840914	171	7052	16091
Ilam	47386	229492	401158	18887	77105	287630	36338	152387	113529
Bushehr	18388	211112	1524292	7701	42881	1508555	11859	168231	15737
Tehran	16474	119105	1700716	15480	114860	1691984	1548	4245	8732
Chaharmahal & Bakhtiyari	43362	143730	966494	29576	69602	899976	29910	74129	66518
South Khorasan	32443	51325	235339	29575	39491	227593	5950	11834	7746
Khorasan-e-Razavi	186061	898120	4899937	152483	435200	4817140	68557	462919	82797
North Khorasan	48705	229109	829059	28722	80259	734665	28633	148849	94395
Khuzestan	97305	1290939	13417378	59314	899444	13277011	45117	391495	140367
Zanjan	48444	522999	1795276	35266	94359	1173396	33931	428640	621881
Semnan	22562	83160	593844	19008	57627	569286	3905	25533	24558
Sistan & Baluchestan	49993	138953	774235	48713	132417	771320	1281	6537	2915
Fars	104253	619079	4382658	79259	423064	4322595	37124	196015	60064
Qazvin	31247	326366	2518948	24333	137007	2276959	13613	189359	241989
Qom	3209	23632	187164	3163	23344	187077	83	288	87
Kordestan	81465	649559	1665371	39181	68017	815305	70454	581542	850067
Kerman	77612	162133	2036241	76402	159415	2032863	2688	2719	3378
Kermanshah	93602	659322	2670478	40562	151689	2028254	78198	507632	642224
Kohgiluyeh & Boyerahmad	44206	126956	191511	21580	26132	129896	33044	100824	61615
Golestan	86465	575702	1771113	34658	150096	897937	61265	425606	873176
Gilan	207508	157270	759786	199791	137064	730980	40547	20206	28806
Lorestan	113187	588096	2453752	48649	158292	1970038	90369	429804	483715
Mazandaran	188598	247196	1115924	168163	157924	880317	62951	89272	235607
Markazi	47103	371985	1335067	34788	142017	1094960	24319	229968	240106
Hormozgan	14735	73983	1849012	11633	68983	1845323	3253	5000	3689
Hamedan	75811	613284	3166916	42749	160698	2358984	56815	452586	807932
Yazd	25105	19347	181932	25105	19347	181932	0	0	0

3. Number of holdings, cultivation area, and annual crops production by crop: Crop year 1396-97 (holding-hectare-ton)

		Total			Irrigated		(HOTOL	Rain-fed	
Crop	Number	Cultivation area	Production	Number	Cultivation area	Production	Number	Cultivation area	Production
Beans (dry)	80966	72417	139330	72579	67079	137181	8399	5338	2149
Peas (dry)	202781	531431	229443	23041	22002	17385	183395	509430	212058
Rice (paddy)	430180	396877	1956281	430180	396877	1956281	0	0	0
Cotton (seed cotton)	28937	52130	145971	28035	50270	144560	902	1861	1411
Onion	112525	45840	1700943	97554	45554	1699585	14971	286	1358
Barely	678868	1765538	2746678	325961	545323	1470132	388884	1220215	1276546
Sugar beet	57039	134759	8388452	57039	134759	8388452	0	0	0
Melon, honeymelon, cantaloupe, wild muskmelon	32858	62832	1444780	28973	58140	1431502	3895	4692	13278
Cucumber	142508	27231	751160	130960	27143	750398	11591	87	762
Forage and poaceae corn	52980	152873	6089927	52057	150341	6082456	924	2532	7471
Grain corn	19800	103627	693510	19345	103325	693380	455	302	130
Saffron <sup>†</sup>	107140	47382	152027	106484	47274	151916	699	108	111
Potato	92866	122578	4117462	81302	121928	4111735	11564	649	5727
Rapeseed	43216	157743	351498	25959	100870	242968	17654	56873	108529
Wheat	1311282	6526587	12704746	642988	1975411	7010441	800585	4551176	5694305
Tomato	184671	105943	4894956	173919	105663	4894001	10752	280	955
Sugar cane	9	89271	7631923	9	89271	7631923	0	0	0
Water melon	36265	70340	1697838	28573	57267	1681647	7693	13072	16191
Carrot, radish and turnip	70275	15461	324601	53085	15287	323746	17190	174	855
Alfalfa	394202	502759	4502999	378551	451546	4408235	21727	51213	94764
Other vegetables	265601	99077	2538616	226687	93307	2511440	42568	5770	27176
Others	275286	349244	671356	157664	192408	550915	126307	156835	120441

<sup>†</sup> The production unit is kilogram.

## **Selected Results of Crop Survey, the Year 1397**

4. Number of holdings, cultivation area, and wheat production by province: Crop year 1396-97 (holding-hectare-ton)

-		Total			Irrigated			Rain-fed	•
Province	Number	Cultivatio n area	Production	Number	Cultivatio n area	Production	Number	Cultivatio n area	Production
Total country	1311282	6526587	12704746	642988	1975411	7010441	800585	4551176	5694305
East Azarbayejan	110915	540569	832070	35285	76445	168563	89238	464123	663507
West Azarbayejan	84943	377381	800540	43191	86788	324020	51960	290593	476520
Ardebil	58850	300513	547170	23737	96071	310921	40744	204443	236249
Esfahan	48043	86729	187885	40656	40626	147857	10608	46103	40027
Alborz	1993	20104	88379	1871	14649	75117	164	5455	13262
Ilam	33860	139025	221325	13002	53856	156366	24717	85169	64959
Bushehr	11219	152560	55883	854	7113	41546	10496	145447	14337
Tehran	7858	45804	214389	6998	43224	210140	889	2581	4249
Chaharmahal & Bakhtiyari	32466	67629	99340	17971	23555	61614	22847	44073	37726
South Khorasan	20597	19236	36314	16846	12930	34343	4709	6306	1971
Khorasan-e-Razavi	116452	507845	819802	75432	153456	757017	58654	354389	62785
North Khorasan	33671	126051	169731	14473	33095	106610	22962	92956	63122
Khuzestan	81277	828237	1562633	47437	530971	1472178	37397	297267	90455
Zanjan	33529	372545	580617	6058	15760	56943	31472	356785	523674
Semnan	13523	36537	125969	11019	25631	110576	2602	10906	15393
Sistan & Baluchestan	29046	69635	95848	28453	69129	95722	594	506	127
Fars	68367	287417	787657	49348	188531	741869	23256	98886	45788
Qazvin	22828	209834	553289	12395	52043	340407	11574	157791	212882
Qom	69674	503305	958009	14198	31076	156731	64302	472229	801279
Kordestan	33529	372545	580617	6058	15760	56943	31472	356785	523674
Kerman	40824	64304	181103	40629	63804	180631	597	500	471
Kermanshah	71349	318509	752146	28071	73211	322915	55382	245298	429231
Kohgiluyeh & Boyerahmad	33849	77021	81304	9151	14727	47543	26921	62294	33761
Golestan	62047	353904	959031	14619	68287	319312	48725	285617	639719
Lorestan	78180	298676	552746	29013	68860	246692	61020	229816	306054
Mazandaran	26232	50871	135370	583	751	3922	25656	50120	131448
Markazi	37955	272355	404101	21092	53607	172343	23665	218748	231758
Hormozgan	2093	9970	41691	1684	9221	40836	416	750	855
Hamedan	55290	365668	803485	19755	53963	258452	43812	311705	545033
Others	24350	24352	56919	19171	14033	49255	5204	10319	7664

 $5.\ Number of \ holdings, cultivation \ area, \ and \ barely \ production \ by \ province: \ Crop \ year \ 1396-97$ 

(holding-hectare-ton)

		Total			Irrigated		(11010	Rain fed	c (011)
Province	Number	Cultivation area	Production	Number	Cultivation area	Production	Number	Cultivation area	Production
Total country	678868	1765538	2746678	325961	545323	1470132	388884	1220215	1276546
East Azarbayejan	59941	125149	171092	18786	35231	70472	46082	89918	100620
West Azarbayejan	18294	44027	69882	7109	9427	25877	12367	34601	44005
Ardebil	36100	139633	155095	13029	37632	44447	25646	102001	110648
Esfahan	36862	45063	112195	31444	30829	96978	6569	14234	15216
Alborz	1423	8793	34088	1356	8453	33359	66	340	729
Ilam	19666	64041	48630	1068	1422	1912	19355	62619	46718
Tehran	4422	22966	88839	4240	22357	87933	233	609	906
Chaharmahal & Bakhtiyari	25705	38019	57386	9195	10649	30578	19788	27370	26808
South Khorasan	18487	14484	28893	16740	11824	28298	2170	2660	595
Khorasan-e-Razavi	70612	166332	236148	55698	84866	222289	20214	81466	13858
North Khorasan	18343	52728	61757	10977	21574	41788	8846	31154	19969
Khuzestan	27866	121120	114828	3565	32082	66948	24785	89039	47880
Zanjan	16254	52440	88135	4917	7716	17268	12126	44724	70866
Semnan	11664	19914	63919	10607	15633	59670	1185	4281	4249
Sistan & Baluchestan	20514	19484	24549	19921	19213	24418	594	271	130
Fars	33948	124272	110662	15982	37792	98440	19513	86480	12222
Qazvin	12111	39716	120839	8334	24260	101328	4658	15457	19511
Qom	2494	10914	37897	2462	10874	37878	39	40	20
Kordestan	10985	17143	20428	3034	2790	5555	8288	14354	14873
Kerman	32964	20584	40982	31754	18430	38173	2688	2155	2809
Kermanshah	28800	97089	177905	4099	5872	22745	26090	91217	155160
Kohgiluyeh & Boyerahmad	21471	36717	28916	2082	2251	2695	19837	34466	26221
Golestan	12773	84976	123698	1488	3080	8616	11453	81895	115082
Lorestan	53176	153867	184582	8788	17976	46293	47009	135891	138289
Mazandaran	10647	15720	23765	632	393	560	10125	15328	23205
Markazi	17581	39839	118768	16473	33157	112463	1654	6682	6305
Hormozgan	38162	154424	378573	14904	35551	130947	27163	118873	247626
Others	17603	36083	24228	7278	3991	12204	10341	32092	12024

## Selected Results of Crop Survey, the Year 1397

## 6. Number of holdings, cultivation area, and rice (paddy) production by province: Crop year 1396-97 (holding-hectare-ton)

D :	Total		Irrigated			Rain-fed			
Province	Number	Cultivatio n area	Production	Number	Cultivatio n area	Production	Number	Cultivatio n area	Production
Total country	430180	396877	1956281	430180	396877	1956281	0	0	0
East Azarbayejan	1910	4529	22592	1910	4529	22592	0	0	0
Khuzestan	9918	44208	211141	9918	44208	211141	0	0	0
Zanjan	2810	5188	25151	2810	5188	25151	0	0	0
Fars	12594	16483	75034	12594	16483	75034	0	0	0
Kohgiluyeh & Boyerahmad	11234	4870	24597	11234	4870	24597	0	0	0
Golestan	14124	18141	89327	14124	18141	89327	0	0	0
Guilan	193908	132350	649915	193908	132350	649915	0	0	0
Lorestan	4136	6147	28435	4136	6147	28435	0	0	0
Mazandaran	153083	148467	741699	153083	148467	741699	0	0	0
Others	26464	16495	88389	26464	16495	88389	0	0	0

## 7. Prediction of cultivation area of annual crops by province: Crop year 1397-98 (hectare)

Province	Total	Irrigated	Rain-fed
Total country	11524623	4805092	6719531
East Azarbayejan	816449	192530	623919
West Azarbayejan	607756	184911	422845
Ardebil	575843	251948	323895
Esfahan	208223	142545	65678
Alborz	33482	26922	6560
Ilam	237934	81501	156433
Bushehr	217608	36657	180951
Tehran	114068	110844	3224
Chaharmahal & Bakhtiyari	145294	67785	77509
South Khorasan	51352	37163	14189
Khorasan-e-Razavi	953468	427019	526449
North Khorasan	217893	74507	143386
Khuzestan	1447520	988153	459367
Zanjan	521525	91803	429723
Semnan	77616	54131	23485
Sistan & Baluchestan	74872	73270	1601
Fars	638413	434861	203552
Qazvin	305651	127938	177713
Qom	21579	21474	105
Kordestan	639381	68294	571087
Kerman	150635	149324	1311
Kermanshah	662685	155430	507255
Kohgiluyeh & Boyerahmad	152066	28785	123281
Golestan	565356	133310	432046
Guilan	155607	137394	18213
Lorestan	556595	146706	409888
Mazandaran	259243	164245	94998
Markazi	375287	142577	232710
Hormozgan	77397	71729	5667
Hamedan	646920	164431	482489
Yazd	16904	16904	0

8. Prediction of cultivation area of annual crops by name of crop: Crop year 1397-98 (hectare)

Crop	Total	Irrigated	Rain-fed
Beans (dry)	56985	54743	2242
Peas (dry)	440893	15407	425486
Rice (paddy)	427373	427373	0
Cotton (seed cotton)	44810	44432	379
Onion	40901	40480	421
Barely	1870395	587447	1282948
Sugar beet	101058	101058	0
Melon, honeymelon, cantaloupe, wild muskmelon	41363	38991	2373
Cucumber	23595	23508	87
Forage and poaceae corn	122229	121202	1026
Grain corn	90984	90850	134
Saffron <sup>(3)</sup>	50710	50642	68
Potato	106426	105351	1076
rapeseed	190318	108861	81457
Wheat	6684622	1966587	4718035
Tomato	106705	106546	159
Sugar cane	106446	106446	0
Water melon	60499	52401	8097
Carrot, radish and turnip	10909	10734	176
Alfalfa	510058	456646	53412
Other vegetables	102773	98059	4715
Others	334570	197330	137240

## 9. Prediction of cultivation area of wheat by province: Crop year 1397-98 (hectare)

Province	Total	Irrigated	Rain-fed
Total country	6684622	1966587	4718035
East Azarbayejan	564193	78486	485707
West Azarbayejan	368916	77273	291644
Ardebil	280108	87003	193105
Esfahan	96369	48407	47962
Alborz	17204	11259	5945
Ilam	140663	51157	89506
Bushehr	169531	5631	163900
Tehran	42434	40771	1663
Chaharmahal & Bakhtiyari	72226	25953	46274
South Khorasan	22948	13608	9340
Khorasan-e-Razavi	550473	153497	396976
North Khorasan	123209	28747	94462
Khuzestan	945011	582430	362580
Zanjan	372009	17471	354538
Semnan	37542	25056	12486
Sistan & Baluchestan	30179	29673	506
Fars	303875	193865	110010
Qazvin	186627	46837	139790
Qom	497511	28666	468844
Kordestan	56720	56430	290
Kerman	333324	83261	250064
Kermanshah	37542	25056	12486
Kohgiluyeh & Boyerahmad	94035	15246	78789
Golestan	328734	59363	269371
Lorestan	329420	77290	252130
Mazandaran	50872	605	50266
Markazi	274117	54132	219985
Hormozgan	8789	7839	951
Hamedan	366721	53450	313271
Others	20863	13181	7683

10. Prediction of cultivation area of barely by province: Crop year 1397-98

(hectare)

Province	Total	Irrigated	Rain-fed
Total country	1870395	587447	1282948
East Azarbayejan	122249	35436	86813
West Azarbayejan	49627	11850	37777
Ardebil	152351	44502	107849
Esfahan	50109	35332	14778
Alborz	10832	10455	378
Ilam	65509	1460	64049
Tehran	23213	22011	1202
Chaharmahal & Bakhtiyari	41220	13152	28069
South Khorasan	15085	12993	2091
Khorasan-e-Razavi	181954	86252	95702
North Khorasan	55625	21960	33665
Khuzestan	120770	28154	92616
Zanjan	55917	6649	49268
Semnan	21859	17383	4476
Sistan & Baluchestan	14552	14281	271
Fars	139820	55715	84105
Qazvin	45061	26039	19022
Qom	10730	10710	20
Kordestan	17894	4247	13647
Kerman	18750	17731	1019
Kermanshah	95257	9196	86061
Kohgiluyeh & Boyerahmad	42543	2631	39912
Golestan	89063	3806	85256
Lorestan	153195	16487	136707
Mazandaran	15676	504	15172
Markazi	42720	34855	7865
Hamedan	188884	39831	149053
Others	29929	3824	26105

## Selected Results of Crop Survey, the Year 1397

11. Prediction of cultivation area of rice (paddy) by province: Crop year 1397-98 (hectare)

Province	Total	Irrigated	Rain fed
Total country	427373	427373	0
East Azarbayejan	3141	3141	0
Khuzestan	84424	84424	0
Zanjan	5392	5392	0
Fars	15709	15709	0
Kohgiluyeh & Boyerahmad	6424	6424	0
Golestan	9253	9253	0
Guilan	132774	132774	0
Lorestan	3169	3169	0
Mazandaran	154750	154750	0
Other	12335	12335	0