FAO ANIMAL PRODUCTION AND HEALTH DIVISION
EMERGENCY CENTRE FOR TRANSBOUNDARY ANIMAL DISEASES
SOCIO ECONOMICS, PRODUCTION AND BIODIVERSITY UNIT

Poultry sector country review

SYRIAN ARAB REPUBLIC

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This review is based on the following report:
The Structure and Importance of the Commercial and Village based Poultry Systems in Syria

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Hama

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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Foreword

The unprecedented widespread outbreaks of Highly Pathogenic Avian Influenza (HPAI) that occurred in many countries in Asia, Europe and Africa since 2003 have been asking for rapid and active response on a national, regional and international level. The HPAI crisis had to be addressed worldwide at the source, which is the poultry population.

The main danger of this disease, like others, lies in the way in which humans interact with and handle the production, distribution, processing and marketing of live poultry and poultry products. The direct and indirect socio-cultural and economic impacts of disease outbreaks influence policy measures and disturb markets, causing the loss of assets. There are strong negative impacts on the livelihoods of rural communities for all producer groups including small holders. Assessment and guidance on measures along the poultry chain for a safe poultry production is therefore of great importance. Specific consideration should be given to strategies and measures that ensure a sustainable pro poor supporting approach and development.

Better understanding of the specific situations of the different poultry sectors and the related market chains will help to develop appropriate disease control measures and improve biosecurity.

This review is part of a series of Country Reviews that are commissioned by the Animal Production Service (AGAP) of the Food and Agriculture Organization of the United Nations (FAO) for the Socio-Economics, Production & Biodiversity Unit of the Emergency Centre for Transboundary Animal Disease of FAO (ECTAD).

This review is intended as a resource document for those seeking information on the poultry sector at national level. It is not exhaustive. Some topics are only partially covered or not covered at all and the document will be supplemented and updated on an ongoing basis. Contributions and feedback are welcome by the author(s), FAO/AGAP and FAO/ECTAD Socio-Economics, Production & Biodiversity Unit[1].

The original report by Prof. Dr. Ahmad Mufid Subuh was edited by Ms Jenny Schwarz in October 2008 and has been supplemented with data from the FAO statistical database (FAOSTAT), the World Bank and the United Nations Population Division.

[1] For more information visit the FAO website at: www.fao.org/avianflu/en/farmingsystems.html or contact either Philippe Ankers or Olaf Thieme, Animal Production Officers Email: Philippe.Ankers@fao.org and Olaf.Thieme@fao.org Food and Agriculture Organisation, Animal Health and Production, Viale delle Terme di Caracalla, 00153 Rome, Italy.

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Acronyms and abbreviations

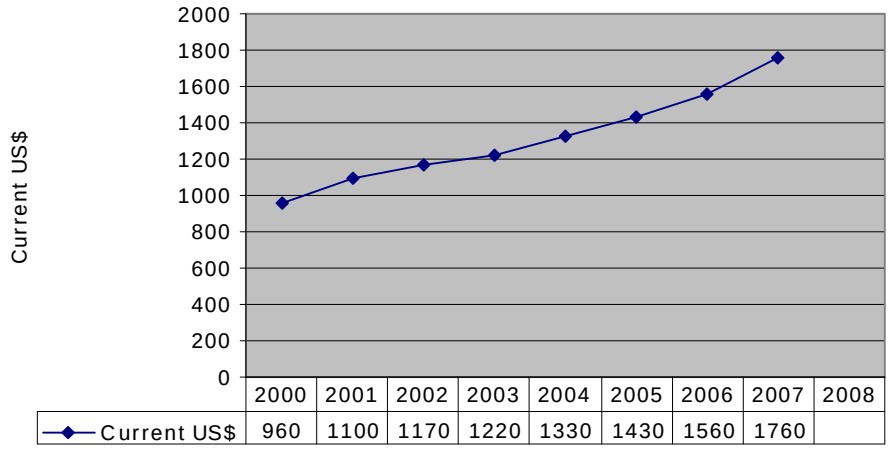
ECTAD	Emergency Centre for Transboundary Animal Disease
FAO	Food and Agriculture Organization
HPAI	High Pathogenic Avian Influenza
MAAR	Ministry of Agriculture and Agrarian Reform
S. P	Syrian Pound

Chapter 1

The country in brief

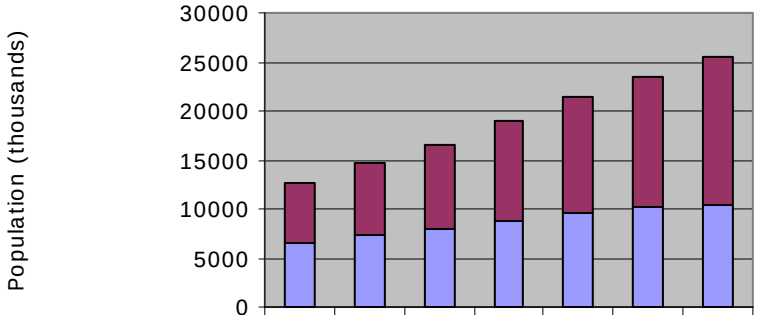
Country:	Syria		
Location:	Middle East, bordering the Mediterranean Sea, between Lebanon and Turkey		
Population, total	19,890,585 (2007)	*Source:*	*World Bank, August 2008*
Population, growth rate:	2% (2007)	*Source:*	*World Bank, August 2008*
Economy group:	Lower middle income	*Source:*	*World Bank, August 2008*

FIGURE 1: **Gross national income (GNI) per capita (Atlas method, current US$)**



Source: World Bank, October 2008

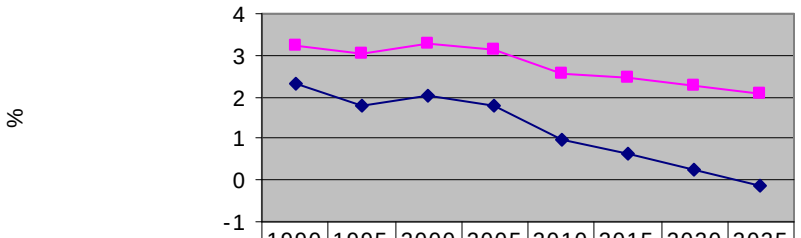
FIGURE 2: **Demographic profile**



	1990	1995	2000	2005	2010	2015	2020
Urban population	6224	7314	8524	1004	1175	1335	1508
Rural population	6496	7297	7987	8845	9674	1015	1049

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2007 Revision, http://esa.un.org/unup, October 2008

FIGURE 3: **Annual population growth rates**



	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
Rural annual growth rate	2.32	1.81	2.04	1.79	0.98	0.65	0.26	-0.15
Urban annual growth rate	3.23	3.06	3.29	3.13	2.55	2.44	2.27	2.08

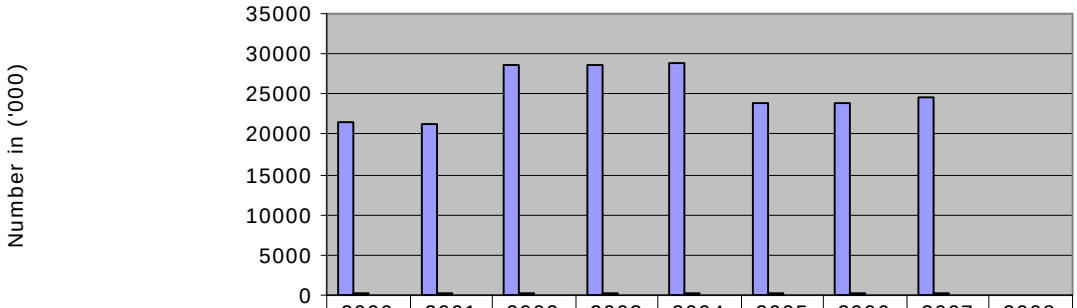
Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2007 Revision, http://esa.un.org/unup, October 2008

Chapter 2

Profile of the poultry sector

2.1 NATIONAL POULTRY FLOCK

FIGURE 4: **National poultry numbers**



	2000	2001	2002	2003	2004	2005	2006	2007	2008
Chickens	21629	21220	28634	28700	28861	23795	24000	24500	
Turkeys	252	230	236	232	239	222	250	260	
Ducks	50	46	47	44	46	44	45	48	
Geese and guinea fowls	51	48	52	49	52	50	50	50	

Source: FAOSTAT, October 2008

2.2 GEOGRAPHICAL DISTRIBUTION OF POULTRY FLOCKS

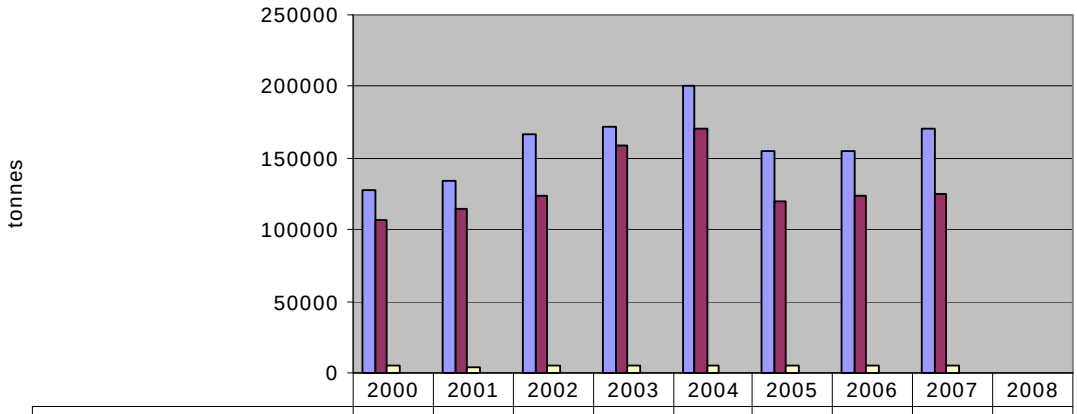
TABLE 1:
Distribution of poultry

Location					Chicken	Ducks	Geese	Turkey	Pigeons
	Breeding stock	Broiler	Layers	Local					
	Exotic (Commercial)	Exotic (Commercial)	Exotic (Commercial)	Dual purpose	Total	Total	Total	Total	Total
Aleppo		842,000	1,582,000		2,424,000	3,685	6,350	64,420	257,450
Al-Hassake		1,457,000	1,579,000		3,036,000	18,567	21,892	60,298	106,601
Al-Raqqa		203,000	261,000		464,000	119	689	8,525	23,555
Dair-Ezzor		166,000	180,000		346,000	1,769	960	11,400	19,200
Damascus		7,000	13,000		20,000	-	-	-	-
Rural Damascus		2,068,000	4,357,000		6,425,000	2,613	1,606	4,458	39,604
Dar'a		243,000	701,000		944,000	2,000	1,960	5,450	71,100
Ghab		80,000	91,000		171,000	1,850	1,925	3,899	23,432
Hama		443,000	751,000		1,194,000	2,102	2,855	15,692	254,009
Homs		1,231,000	4,068,000		5,299,000	7,360	7,305	23,205	374,800
Idleb		449,000	1,059,000		1,508,000	1,856	2,039	18,419	227,756
Lattakia		234,000	375,000		609,000	1,005	1,115	1,055	26,328
Quneitra		97,000	76,000		173,000	50	35	100	4,500
Sweida		221,000	320,000		541,000	477	844	4,954	28,149
Tartous		200,000	441,000		641,000	575	244	858	9,812
Total	**0**	**7,941,000**	**15,854,000**		**23,795,000**	**44,028**	**49,819**	**222,733**	**1,466,296**

Source: Agricultural Statistical Abstract, Department of Planning and Statistics, Ministry of Agriculture and Agrarian Reform, 2005

2.3 PRODUCTION

FIGURE 5: **National production of the poultry sector**

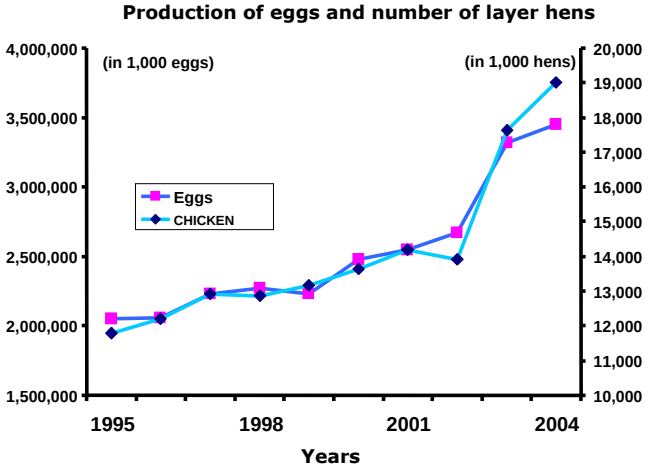


	2000	2001	2002	2003	2004	2005	2006	2007	2008
Hen eggs (in shells)	127295	133563	166039	172450	200102	155205	155000	170000	
Chicken meat	106602	114228	123188	159429	170373	120000	124000	125000	
Turkey meat	4690	4550	4620	4690	4690	4620	4900	5250	
Duck meat	72	67	67	64	70	70	70	70	
Goose or guinea fowl meat	122	117	125	120	125	120	120	120	

Source: FAOSTAT, October 2008

The total number of layer birds in 2005 was about 16,865,000 million, of which 11,862,000 million were productive. The number of productive layers of the domestic type was about 5,458,000 in 2000 and decreased to about 3,992,000 layers in 2005. The decrease in the number of domestic layers year after year emphasises the fact that commercial layer farms are taking over production. However, the production of eggs from domestic layers still ranges from 10-15%. Total egg production was about 3,582 million in 2004 but then dropped to about 2,767 million in 2005 which was an increase of 473,000 eggs (about 21%) in comparison to the year 2000. Egg production on layer farms is more than 85% of which about 11% is produced by the public sector and the rest is produced by the private sector.

FIGURE 5.a: **Development of table egg production and number of layer hens 1995-2004**



Source: Consultant's report

In 2005 the average annual production of eggs per hen was about 154, which is higher than the average consumption rate in Syria, estimated at 127 eggs per year per person. These figures indicate that egg production in Syria meets current needs and can cope with expected population increases.

Private sector poultry farms produced about 105,034 tons of chicken meat in 2000. Broiler meat constituted about 85% of this quantity and the rest came from spent hen meat and rural production. In the year 2004, the production of poultry meat was 170,370 tons and thus about 62% higher than in the year 2000.

It can be concluded that poultry production in the country has developed very rapidly and that the current production of broiler meat and table eggs meets the need of the local market and achieves some surplus for export.

2.4 CONSUMPTION

In Syria, less than 4% of the total population is undernourished. It is worth mentioning that 27% of protein and 31% of fat in the household diet comes from animal sources (FAO, 2005).

Regarding egg consumption, per capita use has markedly increased to an estimated average consumption rate for Syria of 127 eggs/year/person. The per capita production of eggs was about 154 eggs/year in the year 2005. These figures indicate that egg production in Syria meets the current needs and can cope with expected population increases.

Figure 6.a: Eggs consumption

Detailed information has not yet been sourced.

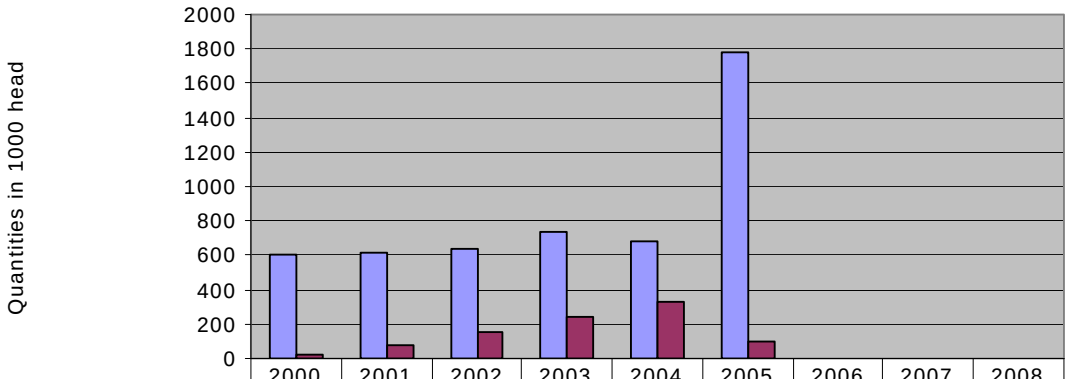
Per capita consumption of broiler meat has also increased and is expected to reach 17 kg /year/person (National Poultry Production Committee Statistics, 2006). This calculation was done on the basis that the total number of broiler parents is 2,600,000, two thirds of which are productive (each producing 100 chicks) with 10% mortality in the offspring. However the actual consumption per capita of broiler meat is still about 9-11 kg/year/person (Agricultural Abstract Statistics, 2001-2005).

Figure 6.b: Poultry meat consumption

Detailed information has not yet been sourced.

2.5 TRADE

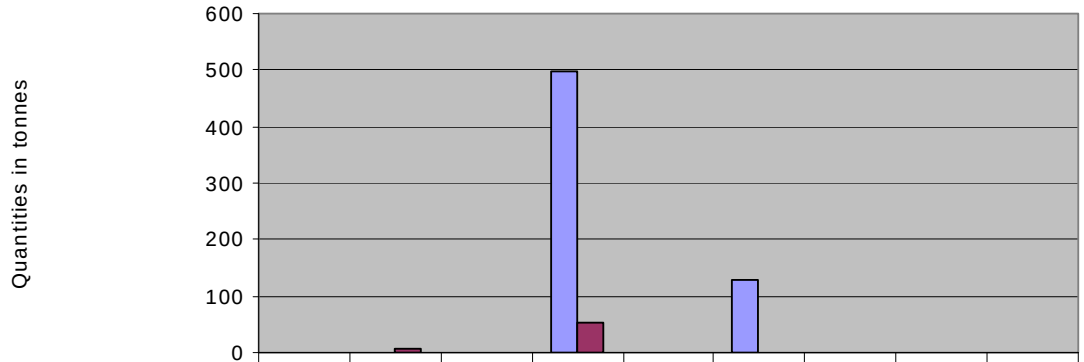
FIGURE 7.a: **Import/Export of live chickens (up to 185 g. only)**



	2000	2001	2002	2003	2004	2005	2006	2007	2008
Imports Quantity	600	611	635	737	685	1785			
Exports Quantity	25	80	150	243	328	99			

Source: FAOSTAT, October 2008

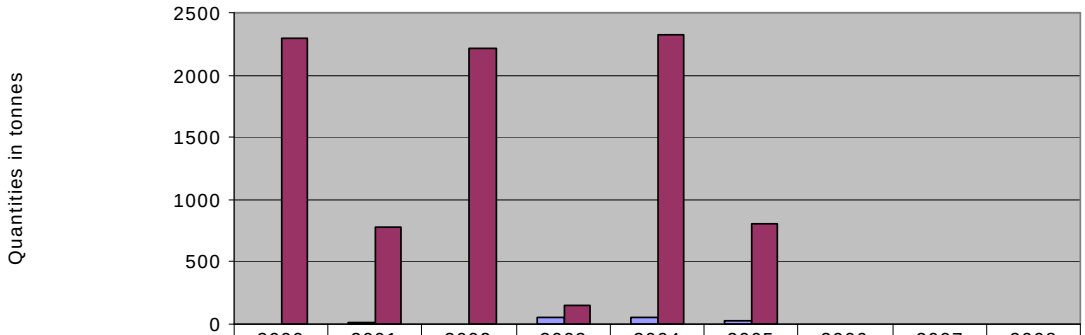
FIGURE 7.b: **Import/Export of chicken meat**



	2000	2001	2002	2003	2004	2005	2006	2007	2008
Imports Quantity	0	0	0	498	0	127			
Exports Quantity	0	5	0	52	0	1			

Source: FAOSTAT, October 2008

FIGURE 7.c: **Import/Export of hen eggs (with shells)**



	2000	2001	2002	2003	2004	2005	2006	2007	2008
Imports Quantity	0	15	0	51	48	29			
Exports Quantity	2299	778	2219	156	2323	800			

Source: FAOSTAT, October 2008

2.6 PRICES

Day old chicks

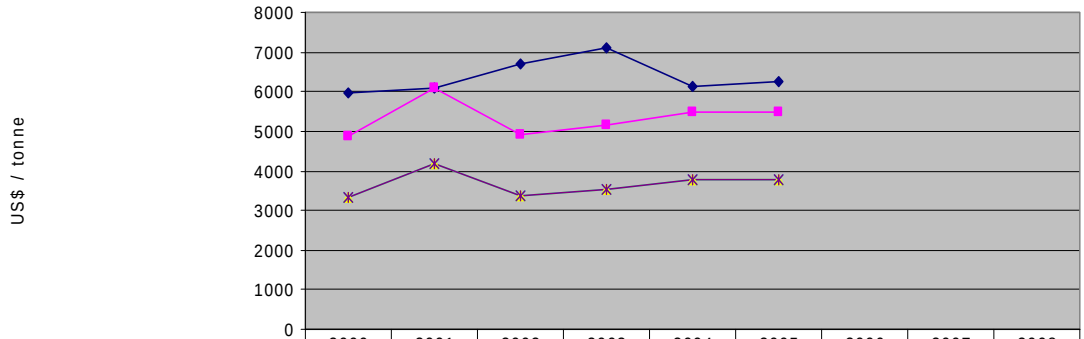
The prices of rearing day old chicks are determined by the chick producing centers according to demand and supply. Table 2 gives information on the mean monthly and annual prices of one-day old broiler chicks in Syria from 2001-2006. The prices ranged from a minimum of 3 S.P. to the maximum of 38 S.P. The prices can also greatly differ within one month; so that there is a different price at the beginning, middle and end of the month (see Appendix V). It is important to mention here that the cost of producing one-day old chicks is about 6-8 S.P.

TABLE 2:
Mean monthly prices of one-day old broiler chicks in Syria from 2001-2006 (Syrian Pounds/chick) (1 Syrian Pound ≈ 0.020 US$)

Month/year	2001	2002	2003	2004	2005	2006
January	12	12	9	10.5	16.5	6.5
February	19	10	13	11.5	21.5	5.5
March	25	9	15	17.5	24.5	13.5
April	21	9	13	17	19.5	18.5
May	14	6	15	14.5	14	22.5
June	14	11	14	8.5	9.5	29.5
July	11	8	9	9	9.5	27
August	13	6	10	17	16.5	30
September	20	9	22	25.5	21.5	31.5
October	23	13	23	18	10	31.5
November	18	9	25	11.5	6	28.5
December	14	11	18	9.5	5	18.5

Other products

FIGURE 8: **Producer price (US$/tonne)**



	2000	2001	2002	2003	2004	2005	2006	2007	2008
Hen eggs (in shells)	5977.73	6102.45	6681.51	7093.36	6136.51	6269.18			
Chicken meat	4873.05	6111.36	4899.78	5155.01	5485.84	5479.44			
Turkey meat	3347.17	4197.68	3365.52	3540.85	3768.09	3763.69			
Duck meat	3347.17	4197.68	3365.52	3540.85	3768.09	3763.69			
Goose or guinea fowl meat	3347.17	4197.68	3365.52	3540.85	3768.09	3763.69			

Source: FAOSTAT, October 2008

Broilers

The mean monthly and annual prices (S.P/Kg) of live broiler in Syria from 2001-2006 are shown in Table 3. The prices ranged from as low as 28 S.P. per kilogram of live weight to the maximum price of 80 S.P. per kilogram of live weight. The prices greatly differ within one month though.

TABLE 3:
Mean monthly prices of live broiler in Syria from 2001-2006 (Syrian Pounds/kg)
(1 Syrian Pound ≈ 0.020 US$)

Month/year	2001	2002	2003	2004	2005	2006
January	38	57	67	45	58	46
February	44	67	71	49	58	38
March	46	69	57	52	66	63
April	54	53	55	54	54	70
May	55	47	46	53	49	62
June	46	48	46	45	47	71
July	44	42	50	48	46	68
August	52	48	54	55	51	61
September	54	56	56	55	55	64
October	55	48	42	57	48	71
November	52	32	36	52	37	67
December	46	34	54	47	43	69

It is noteworthy to mention that the cost of producing broilers with a live weight of 2 kilogram range from 85 S.P. to 105 S.P. The reasons for the higher costs are:

- Higher cost of manufactured poultry feed due to the increased cost of raw materials on international markets by about 20% (for example for yellow corn and soybean)
- Higher mortality with increases from 5% to about 20% in some poultry flocks due to cold weather
- Higher cost for heating by about 20% due to increases in raw material such as coal

Consumer price

Figure 9 Consumer price (US$/tonne)

This information has not yet been sourced.

Chapter 3

Poultry production systems

TABLE 4:
FAO classification of poultry production systems

Sectors FAO/definition	**Poultry production systems**			
	Industrial and integrated	**Commercial**		**Village or backyard**
		Bio-security		
		High	**Low**	
	Sector 1	**Sector 2**	**Sector 3**	**Sector 4**
Biosecurity	High	Mod-High	Low	Low
Market outputs	Export and urban	Urban/rural	Live urban/rural	Rural/urban
Dependence on market for inputs	High	High	High	Low
Dependence on goods roads	High	High	High	Low
Location	Near capital and major cities	Near capital and major cities	Smaller towns and rural areas	Everywhere. Dominates in remote areas
Birds kept	Indoors	Indoors	Indoors/Part-time outdoors	Out most of the day
Shed	Closed	Closed	Closed/Open	Open
Contact with other chickens	None	None	Yes	Yes
Contact with ducks	None	None	Yes	Yes
Contact with other domestic birds	None	None	Yes	Yes
Contact with wildlife	None	None	Yes	Yes
Veterinary service	Own Veterinarian	Pays for veterinary service	Pays for veterinary service	Irregular, depends on govt vet service
Source of medicine and vaccine	Market	Market	Market	Government and market
Source of technical information	Company and associates	Sellers of inputs	Sellers of inputs	Government extension service
Source of finance	Banks and own	Banks and own	Banks and private[2]	Private and banks
Breed of poultry	Commercial	Commercial	Commercial	Native
Food security of owner	High	Ok	Ok	From ok to bad

Sector 1: Industrial integrated system with high level of biosecurity and birds/products marketed commercially (e.g. farms that are part of an integrated broiler production enterprise with clearly defined and implemented standard operating procedures for biosecurity).

Sector 2: Commercial poultry production system with moderate to high biosecurity and birds/products usually marketed commercially (e.g. farms with birds kept indoors continuously; strictly preventing contact with other poultry or wildlife).

Sector 3: Commercial poultry production system with low to minimal biosecurity and birds/products entering live bird markets (e.g. a caged layer farm with birds in open sheds; a farm with poultry spending time outside the shed; a farm producing chickens and waterfowl).

Sector 4: Village or backyard production with minimal biosecurity and birds/products consumed locally.

[2] Money lenders, relatives, friends, etc.

3.1 BACKGROUND INFORMATION

The poultry industry in Syria is dominated by commercial poultry (broilers and layers) in the urban and peri-urban areas. The poultry production sector has largely developed in Syria from 1970 to the present day. This was due to government support and to the private sector in particular. The development of the sector can be divided into three main phases as follows:

Phase one: Pre-1970

Before 1970, there was no real scientific poultry breeding; the rearing of poultry was carried out conventionally by rural farmers and in urban and peri-urban areas. The local consumption of poultry meat and table eggs depended on two sources: firstly, on local breeds of low production raised by rural farmers (such as Balladi, Gelani, Kalite etc.) and secondly on imported products from east European countries and some west European countries like Denmark and Holland. In 1960, the Syrian Government initiated different programmes to improve the traditional sector by distributing improved poultry breeds to farmers, helping them in combating poultry diseases and teaching them modern ways of breeding and production. However, lack of investment meant that these programmes were not sufficient to improve the production of the traditional sector significantly. Therefore, the commercial poultry production sector was developed to meet the increasing demand of a fast growing population for poultry meat and eggs.

Second Phase: 1970-1995

The poultry sector grew spectacularly in shape, size and productivity during this period, with the establishment by the Government of the General Poultry Organization in 1974 being a significant development. The most important achievements of this period were:

- Building high capacity production meeting modern standards
- Starting breeding of broiler parents and layer parents
- Developing and improving vaccines, drugs and feed factories
- Training specialist labour
- Achieving self-sufficiency with surplus for exportation

Third phase: 1995 to date

Over the last decade, there has been a continuous fast growth and development in poultry production in Syria. In terms of numbers this means the following:

- Producing more than 200 million broilers a year
- Producing more than 400 million table eggs a year
- Raising about 2.5 million broiler parents
- Raising about 300,000 thousand layer parents
- Raising about 200,000 thousand broiler grandparents
- Raising about 2 million layers for table eggs

According to the National Poultry Production Committee Statistics (2006), the above production was achieved through the following:

- 1,099 layer farms out of which 99 are unlicensed
- 7,120 broiler farms out of which 2716 are unlicensed
- 220 broiler parents' farms
- 28 layer parents' farms
- 8 broiler grandparents farms
- 1 layer grandparents' farm
- 42 hatcheries with a capacity of 36,000,000 eggs/cycle

The most recent information on the number and capacity of poultry farms is given below:

TABLE 5:
Number and capacity of poultry farms in Syria

Licensed Farms	Number	Capacity	Unit
Broiler farms	4,039	30,000,000	Birds/cycle
Layer Farms	1,099	11,000,000	Birds/cycle
Broiler Parent Farms	220	2,300,000	Birds/cycle
Layer Parent Farms	22	352,000	Birds/cycle
Broiler Grandparent Farms	8	242,000	Birds/cycle
Layer Grandparent Farms	1	2,400	Birds/cycle
Hatcheries	42	11,000,000	Eggs/cycle

Source: Statistics of poultry production committee in Syria from 1997-2006, Damascus, National Poultry Workshop, Faculty of Veterinary Medicine, Hama – Syria

At the beginning of this phase, the main difficulty was providing sufficient inputs for production (feed, vaccines and drugs), but later the problem was finding markets for the surplus of poultry products (Rahal, 2003a).

By analyzing the above-mentioned phases of poultry rearing development in Syria, we can observe the absence of any planning measures and the focus on increasing poultry production and its horizontal and vertical development without giving similar consideration to marketing (Subuh, 2004).

3.2 SECTOR 1: INDUSTRIAL AND INTEGRATED PRODUCTION

See above

3.3 SECTORS 2 AND 3: OTHER COMMERCIAL PRODUCTION SYSTEMS

As mentioned above, commercial poultry production has developed significantly in recent years, while traditional poultry or backyard poultry has markedly decreased and is confined mainly to rural areas.

3.3.1 Breeding stocks and hatching eggs

About 80% of the broiler parents required in Syria are provided through local production as there are now 8 farms for breeding broiler grandparents. The rest of the broiler parents are supplied by imports (Subuh, 2001 & 2002). The number of imported eggs for broiler parents in 2005 was 455,850, which accounted for about 20% of the total number of broiler parents. Import of broiler grandparents or broiler parents is subject to the approval by the Animal Production Directorate that allows imports according to market needs. There is, however, no clear integrated plan to meet market needs and this leads to some imbalance in the market.

The number of licensed layer parent farms has increased almost seven times from 9 farms in the year 2000 to 62 farms in 2005 (Agricultural Statistics, 2005). They are mainly located in the provinces of Homs and Rural Damascus. The number of layer parent stock has increased by about 113.2% from 243,000 in 2000 to 518,000 in 2005. The capacity of layer parents farms range from 5,000 -16,000 layers per house. Production of layer chicks has grown by about 15 percent from 16,817,000 in 2000 to 19,341,000 in 2005 (see also chapter 3.3).

3.3.2 Broiler meat

The number of broiler and broiler parent farms and their production of hatching eggs and chicks by governorate for the year 2005 and their development in the country from 1996 to 2005 are shown in Table 6. It can be clearly seen that the number of licensed broiler farms has increased by about 52.8% from 3,579 in the year 2000 to 5,468 farms in 2005. Surprisingly, the number of unlicensed broiler farms has increased dramatically too. As shown in Table 6, broiler farms are unevenly distributed all over the Syrian cities except Damascus, with their main concentration in Homs, Hama, Tartous, Dar'a, Idleb, Aleppo and Rural Damascus.

TABLE 6:
Broiler and broiler parent stock farms, numbers of broiler parent stocks and production of hatching eggs for broilers and broiler chicks in Syria during the years 1996-2005 and distribution by governorate for the year 2005

Year Governorate	Broiler farms		Broiler parent stock farms		Broiler parent stock (in 1000)		Production of broiler hatching eggs (in 1000)	Production of broiler chicks (in 1000)
	Licensed	Not licensed	Licensed	Not licensed	Total	Producing		
1996	3,462	370	95	4	1,422	1,011	156,122	91,245
1997	3,374	486	111	5	1,398	1,020	168,926	105,642
1998	3,414	626	70	4	1,244	884	133,350	85,796
1999	3,534	832	72	10	1,344	930	162,298	99,707
2000	3,579	1,126	74	11	1,822	1,336	218,599	138,555
2001	3,898	1,676	133	12	1,967	1,303	209,950	168,314
2002	4,289	1,692	117	7	1,902	1,403	225,089	96,037
2003	4,398	2,716	138	16	1,826	1,452	223,192	95,100
2004	4,861	2,699	220	14	2,243	1,615	356,099	212,215
2005	4,784	2,682	221	17	2,397	1,661	275,118	164,695
Aleppo	384	359	16	-	418	285	18,361	10,941
Al-Hassake	2	1	-	-			-	-
Al-Raqqa	7	3	-	-	-	-	-	-
Dair-Ezzor	18	-	-	-			-	-
Damascus	-	-	-	-	-	-	-	-
RuralDamascus	302	159	30	4	766	513	99,712	78,158
Dar'a	735	263	13	-	130	104	26,000	20,800
Ghab	39	6	-	-	-	-	-	-
Hama	76	634	57	13	342	243	41,935	25,925
Homs	1,606	-	89	-	502	286	47,050	2,014
Idleb	668	751	5	-	181	177	31,860	20,709
Lattakia	84	38	2	-	14	12	2,960	1,000
Quneitra	33	48	-	-	-	-	-	-
Sweida	76	9	-	-	-	-	-	-
Tartous	754	411	9	-	44	41	7,240	5,148

Source: Agricultural Statistical Abstract, Department of Planning and Statistics, Ministry of Agriculture and Agrarian Reform, 2005

The total capacity of poultry farms is about 30 to 40 million birds per cycle. The capacity of broiler farms ranges from as small as 1,500 birds per house to about 12,000 birds per house, with an average of 5,000 birds per house.

The number of licensed broiler parent farms has tripled from 74 farms in the year 2000 to 221 farms in 2005.They are mainly located in the following provinces: Homs, Hama, Rural Damascus, Aleppo, Dar'a, Tartous and Idleb. The number of broiler parent stock has increased by about 31.6% from 1,822,000 in 2000 to 2,397,000 in 2005. The capacity of broiler parents farms ranges from 5000 -10,000 birds per house.

The annual production of broiler chicks shows a large fluctuation. In 2004 it was 212,215,000 and thus about 53% higher than in 2000, but the production for 2005 was only about 19% higher than in 2000. This variation is related mainly to demand and supply.

3.3.3 Hen table eggs

The number of licensed layer farms has increased by about 11.9% from 1,501 in 2000 to 1,680 farms in 2005. In addition, the number of unlicensed layer farms has increased too. As shown in Table 7, layer farms are unevenly distributed over Syrian cities, with the main concentration in Homs, Rural Damascus, Dar'a, Aleppo, Idleb, and Hama. The total capacity of layer farms is about 11,000,000 million layers per cycle. The capacity of layer farms range from as little as 500 layers per house to about 10,000 layers per house, with the majority in the range of 3,000-50,000 layers per house.

The numbers of layer and layer parent farms, number of layer parents and their production of hatching eggs and chicks by governorate for the year 2005 and their development in Syria from 1996 to 2005 are presented in Table 7.

TABLE 7:
Layer and layer parent stock farms, numbers of layer parent stocks and production of hatching eggs for layers and layer chicks in Syria during the years 1996-2005 and distribution by governorate for the year 2005

Year Governorate	Layer farms		Layer parent stock farms		Layer parent stock (in 1000)		Production of layer hatching eggs (in 1000)	Production of layer chicks (in 1000)
	Licensed	Not licensed	Licensed	Not licensed	Total	Producing		
1996	1,137	14	10	-	225	149	32,891	18,065
1997	1,399	48	13	-	213	142	31,745	15,366
1998	1,510	63	9	8	237	163	27,018	16,279
1999	1,481	54	9	-	194	137	28,953	16,425
2000	1,501	52	9	-	243	166	32,338	16,817
2001	1,245	82	15	1	461	323	71,325	67,356
2002	1,687	111	28	-	743	522	100,082	52,814
2003	1,715	83	13	-	293	214	46,149	23,671
2004	1,956	114	59	-	474	294	63,135	37,769
2005	1,680	110	62	-	518	316	61,524	19,341
Aleppo	79	3	-	-	-	-	-	-
Al-Hassake	1	1	-	-	-	-	-	-
Al-Raqqa	3	-	-	-	-	-	-	-
Dair-Ezzor	1	-	-	-	-	-	-	-
Damascus	2	-	-	-	-	-	-	-
Rural Damascus	531	67	14	-	263	176	33,318	17,874
Dar'a	111	-	-	-	-	-	-	-
Ghab	7	3	-	-	-	-	-	-
Hama	21	21	-	-	-	-	-	-
Homs	866	-	48	-	255	140	28,206	1,467
Idleb	30	11	-	-	-	-	-	-
Lattakia	8	3	-	-	-	-	-	-
Quneitra	3	-	-	-	-	-	-	-
Sweida	5	1	-	-	-	-	-	-
Tartous	12	-	-	-	-	-	-	-

Source: Agricultural Statistical Abstract, Department of Planning and Statistics, Ministry of Agriculture and Agrarian Reform, 2005

3.3.4 Housing

There are two basic systems for poultry housing in the commercial sector.

Closed housing system

In this system, the house is completely isolated from the external environment and its atmospheric condition is automatically controlled. This type of housing is applied in the public sector and in grandparents' farms. Two methods are used within this system for layer breeding: the deep litter breeding method and the battery method; while in broiler breeding only the deep litter method is used. Within this type of housing, the shed conditions (heating, ventilation, lighting, and bird density in one square meter) are controlled in accordance with recommendations of the companies producing various chick breeds.

Open housing system

Most poultry farmers follow the open housing system for broiler and layer production as well as parent stock breeding, while the battery system is not used in this type of housing. In all poultry housing systems used in commercial poultry all over Syria, the houses are disinfected before each breeding cycle. Such disinfection is carried out by spraying the floor with ground live gypsum, then the walls are sprayed with live gypsum solution, following which the whole house is washed with water. Later, the house is disinfected with formalin by either evaporation or spraying. Some farmers spray the house with chemical compounds of iodine and chlorine. In the open housing system, the floor is covered after disinfection with wood shavings, and additional quantities of wood shaving are added if the situation requires. In order to control temperature, diesel, gas or carbon stoves (of petroleum refining residuals) are used. Some farmers use also electric heaters prepared for poultry brooding. During winter, temperature control in the open system can be easily managed, but in summer this is difficult as ventilation is natural and temperature tends to be high. In addition, the regulation of atmospheric humidity is sometimes not in accordance with requirements. Normal lamps or argon lamps (neon) can perform the regulation of lighting according to advisable schedules for each type of breeding and for each stage of growth.

Different kinds of troughs are used in poultry farms such as:

- Plastic or cartoon pans during the first days of rearing.
- Automatic long feeder chain (approximately 50% of layer farms and fewer broiler farms are using such kind of troughs).
- Automatic round feeder (mainly used in parent breeding).
- Manual long feeder (mostly made of zinc, 1-2 meters long, basically used in the rearing of broilers).

Different kinds of watering systems are also used in poultry farms such as:

- Automatic round watering system (used in layers breeding and parents, but scarcely used in broilers).
- Automatic Nipple system (used in layer breeding in the battery housing type)
- Manual long watering system (usually made of zinc, 1-2 meters long, used in broiler and layers breeding).
- Shed-long side watering system where water is flowing permanently (used widely in broiler and layer breeding).

Collection of eggs is done manually in the deep litter system and the shed is equipped with many nests for the eggs; while in the battery system, the collection of eggs is done automatically.

For the purpose of poultry farm management, the firms producing broilers provide farmers with a number of schedules concerning:

- Preventive vaccination program in which vaccines are specified together with their timing
- Feeding regime in which the ratio of nutrients necessary for each stage of growth is determined
- Lighting and watering regimes

3.3.5 Other species

This information has not yet been sourced

3.4 SECTOR 4: VILLAGE OR BACKYARD PRODUCTION

3.4.1 Chickens

This information has not yet been sourced.

3.4.2 Other species

This information has not yet been sourced.

3.5 POULTRY MARKETING CHAIN ANALYSIS

3.5.1 Day-old chicks

This information has not yet been sourced.

3.5.2 Chicken meat

Broilers are marketed by the producers who sell their produce either:

- Directly in the form of live broilers to wholesale dealers, many of whom own manual slaughterhouses, where the broilers are slaughtered, cleaned and then distributed to retail broiler shops
- Through brokers who get a small profit margin in return for their services. They buy live broilers from farms and sell them to slaughterhouses (Subuh, 2004).

Live broilers are marketed in plastic boxes especially made for transport. They are easily packed, cleaned and sterilised and are lightweight and cheap. Broiler meat is marketed in plastic bags of 40-50 kg to the broiler shops. These shops keep the meat in refrigerators and exhibit it to the consumer in white plastic containers in the form of whole broilers or pieces (Subuh, 2001, 2004). Modern slaughterhouses market package whole broilers and meat pieces with a special trade mark (such as Dajajuna, Baladi, and Yarmouk) either through their own shops or through supermarkets and malls. Broiler shops are governed by technical and hygienic conditions, controlled by special committees of the Government with representatives from the supply directorate and health affairs and licenses department. In addition there are small shops for selling live chicken, where poultry are slaughtered and cleaned in the presence of the client in return for a small fee. This kind of slaughtering is done domestically or in small slaughter slabs in the rural areas where 50% of the population live.

3.5.3 Table eggs

The basic method for selling table eggs is wholesale selling to egg shops, where the producer agrees to sell all his production to one or more dealers according to production quantities. Some medium size layer producing farms market their products through distributors directly to retailers. It is noteworthy to mention that the cost of producing one box of eggs (containing 12 cardboard plates, each containing 30 eggs), range between 750 S.P to 1300 S.P or from 60 -110 S.P per 30 eggs. The reasons for price variations include:

- Higher prices of manufactured poultry feed due to international increases in raw materials by about 20-30% such as the price of yellow corn (from 9-12.5 S.P), barley (9-13 S.P) and soybean (13-16 S.P)
- Decreased production in layer flocks due to cold weather and diseases such as IB
- Demand and supply
- Smuggling of eggs to neighbouring countries such as Iraq and Lebanon.

Table eggs are marketed in cardboard plates, each containing 30 eggs, distributed by small dealers in ordinary closed cars travelling the city streets and selling table eggs to groceries, pastry shops, greengroceries, supermarkets and others.

3.5.4 Other species

This information has not yet been sourced.

Chapter 4

Trade, marketing and markets

4.1 DOMESTIC MARKET

The marketing of poultry products is subject to supply and demand which helps to promote poultry breeding. Sometimes sudden changes disturb the breeding cycle due to the increased prices of some products. For example, when the price of table eggs increases, some farmers switch from broiler rearing to layer rearing, and this can also affect the breeding of parents producing breeding chicks. In the above mentioned situation, egg supply would increase and egg price would decrease, and visa versa for the broiler meat. Sometimes, breeders refrain from producing either product because they cannot switch from one production line to another or because they do not expect good prices for their products.

There is also no standard broiler weight, and usually owners of slaughterhouses decide the weight of broilers according to the market demands, which in turn can economically affect broiler breeders and the availability of this product in the market. In addition, the quality of broilers that are required in the market affects the type of breeding. When the demand is high for Shawirma (vertical skewer), the demand is great for heavyweight broilers, whilst an increase in demand for lightweight broilers is linked to increases in demand for roasted broilers. In addition, some dealers control and exploit marketing by providing chicks and feedstuffs to farmers and then determining the price of the products. In this situation, the dealers determine the price of one-day old chicks, feedstuffs and the products. This is the case for the owners of automatic slaughterhouses who make contracts with farmers whereby they provide all poultry production requirement to farmers and then buy their products according to the price they set. The Ministry of Supply fixes only the prices of roasted broilers (in restaurants), and egg retailing according to weights.

It can be concluded that, there is a lack of Government policy for marketing of poultry products that ensures an even supply of poultry products to the consumers and protects producers from sudden and unexpected changes in product price.

Table 8: Distribution of markets

This information has not yet been sourced.

4.2 IMPORT

In general, about 80 percent of broiler parents are provided by local production and the rest comes through importation from European countries (Netherlands and UK) or United States of America.

TABLE 9:
Parent and grandparent poultry stock imported for the private sector in Syria (1999-2006)

Item /Year	1999	2000	2001	2002	2003	2004	2005	2006
	307,006	337,161	439,157	514,268	244,530	315,650	455,850	615,750
Broiler Parents	67,980	66,680	122,070	191,092	55,519	81,600	115,200	183,500
Layer Parents	65,167	60,287	150,169	82,386	91,615	86,800	155,650	254,875
Broiler Grandparents	-	-	-	2,750	-	-	16,800	28,500
Layer Grandparents	-	-	300,000	36,000	-	315,650	455,850	615,750
Hatching Eggs	307,006	337,161	439,157	514,268	244,530	315,650	455,850	615,750

4.3 EXPORT

TABLE 10:
Export of parent stock, hatching eggs and table eggs from Syria (1999-2002)

Item /Year	1999	2000	2001	2002
Broiler Hatching Eggs	21,399,120	2,108,500	339,523	933,778
Layer Hatching Eggs	1,440,000	288,000		
Table Eggs	134,064,000	663,522,000	334,080	4,254,493
Broiler Parents	343,400	452,280		
Broiler chicks	1,680,000	28,681,920		
Broiler Parent Hatching Eggs		300,000		

Source: Statistics of poultry production committee in Syria from 1999-2002, Damascus

4.4 SLAUGHTERING FACILITIES

There are more than hundred technical slaughterhouses (semi-automatic or manual) belonging to the private sector which are distributed all over Syria in Governorates like Rural Damascus, Homs, Hama, Aleppo, Idleb and Latakia. Most of the manual slaughterhouses have a small capacity, are unlicensed and operate only occasionally. Some of the slaughterhouses are public and related to the Poultry General Organization like the semi-automatic one in the Sednaya poultry farm. There are two modern automatic slaughterhouses, one in the city of Aleppo which belongs to Mr. Hamid Kitouh, and one in the industrial area in Homs which belongs to the Daoud Poultry Company. Two other automatic slaughterhouses in Hama and Damascus are in the final stages of construction. There is also one automatic slaughterhouse (out of order) that belongs to the Syrian-Libyan company located in rural Damascus.

Most of the manual slaughterhouses are old, have poor quality slaughtering equipment, slaughter on the floor or on tables and lack adequate maintenance, spare parts and regulations on the discharge of wastes. Many slaughterhouses (of various types) have unhygienic conditions and pose threats to public health, particularly in the rapidly expanding population areas. Old slaughterhouses often discharge blood and untreated wastewater. The elimination of sick bird and subsequent destruction are frequently carried out inappropriately. Blood may coagulate in drains where it putrefies, causing bad odours and sanitary and environmental problems.

4.5 POULTRY FEEDS

Poultry feeding depends on yellow corn and soybean meal (which are mainly imported from the USA and Argentina) and concentrates, in addition to some locally produced feed such as barley and wheat bran. At present, the provision of feedstuffs is no longer an issue as the Government has given permission for importing the required poultry feedstuffs. However, the quality of feedstuffs, technical specifications, and lack of an adequate laboratory capable of analyzing all components are the source of major problems. Poultry feed prices are subject to considerable fluctuations which result in huge losses to the farmers.

Chapter 5

Breeds

5.1 EXOTIC BREEDS

Broiler breeds

The most important breeds for broiler grandparents, broiler parents and broiler are as follows: Ross, Cobb, Hubbard, Avian, Lohmann, Arbor Acres, Hybro, Isa Vedette and Shaver

Broiler Grandparents

Breed	Source	Owner	Location
Ross	Netherlands	Ghlib Alsiad	Homs
Cobb	Netherlands	A. Shobash	Rural Damascus
			Hama
Hubbard	Netherlands	A. Al Katib	Rural Damascus
Hybro	Netherlands	R. Gurds (Army)	Rural Damascus

Layer breeds

The most important layer breeds are:

Hy-Line	from USA
Babcock	from Netherlands
Gold line (White, Brown)	from Netherlands
Bovan (White, Brown)	from Netherlands
Lohman (White, Brown)	from Germany
Isa Brown	from USA
Tetra	from Hungary
High six	from USA

5.2 LOCAL BREEDS

There are no local pure breeds as such in Syria, because the local poultry are a mix of different blood. However, there are different names for the local breeds all over the country. The most important names for local breeds are Brazi, Kalite, Ballade, Gelani, Yellow, Red and Black. The name of one breed may be different from area to area and from one district to another (Ghadri and Halabi, 1981-1982). Local breeds are characterized by small body size, low egg production and according to Ghadri and Halabi (1981-1982) they are more resistant to endemic diseases than the imported breeds. Household flock size ranges from 5-100. Flock size is related to the objectives of the poultry enterprise. The level of productivity is very low compared to the high input systems. For example, a scavenging domestic hen will lay about 30 - 50 eggs per year and up to about 95 eggs per year under improved feeding and husbandry conditions. In contrast, the commercial hens lay about 280 eggs per year. Indigenous or local poultry have always been considered as a distinct breed and different from the known commercial hybrids such as commercial layer or broiler chickens. However, scientists of genetics and breeding at the University of Damascus, Faculty of Agriculture (Dr. M. Mahross, personal communication), and in Aleppo University (Prof. Gh. Ghadri, personal communication), claim that there are no such pure and distinct indigenous breeds. Unfortunately, there is not a single scientific study about local poultry breeds in Syria which could help to clarify that subject.

Chapter 6

Veterinary health, public health, biosecurity measures

At the Ministry of Agriculture and Agrarian Reform (MAAR), there is a separate extension directorate at the central level. The extension directorate is responsible for technical aspects of extension work (extension programs, extension methods and content). At the governorate level there is an agricultural directorate, which has the same structure as the ministry but on a smaller scale. The agricultural directorate includes an extension department, which is responsible for organizing extension work at the government level. At the district level, there is a small replica of the agricultural directorate which includes an extension section, responsible for organising and controlling the implementation of extension work. At the village level there is an extension unit comprising agriculture engineers, technicians, veterinarians and veterinary assistants who are responsible for field implementation extension work. The formal organisation of the MAAR seems logical and systematic from the headquarters down to the extension unit at the village level and all divisions responsible for extension are represented from headquarter to extension units. There is also a clear distinction between administrative tasks and technical tasks at all those levels. In addition to that, the management of extension offices and centres is efficient with regular meetings and a monitoring system using monthly reports. The purpose of such meetings is to identify farmers' problems and to solve such problems. In animal production, horizontal and vertical co-operation and communication among extension centres is very weak. Discussion seems to concentrate on administrative matters because of the lack of any significant extension content, which if available would be too academic and not compatible with farmers' needs. The Extension Directorate at MAAR is aware of the difficulties impeding the extension work and it is developing its extension program through which it endeavours to improve the nature and effectiveness of the extension work.

Structure of veterinary services

At the headquarter level of MAAR in Damascus, there is the Directorate for Animal Health. The directorate consists of different departments and divisions, which are responsible for the technical aspects of veterinary services at the national level (investigation of epidemiological situation, development of the national veterinary plans and policies), and the production of vaccines (17 kinds of vaccines are locally produced). At the governorate level there is an agricultural directorate in every governorate belonging to MAAR. The agricultural directorate consists of many departments; one of these departments is the department of animal health, which is affiliated administratively to the agricultural directorate of the governorate, and technically to the central directorate of animal health. The department is responsible for organizing and implementing the veterinary service plans.

There is also an administrative set up at the district level with several sections. The veterinary section at the district level is responsible for organising and controlling the implementation of veterinary services in the field. At the village level, as mentioned above, there is an extension unit with only one veterinarian, but in addition with one or more veterinary assistants. In addition to veterinarians working in the public sector, there are private veterinarians. Even veterinarians working in the extension units usually work after their working hours as private veterinarians. Basically, veterinarians in the extension units are called by farmers to treat their animals in the farm.

Veterinary services and extension in the field of commercial poultry breeding are mainly provided by the production centres for breeding chicks, private veterinarians and to some extent by public veterinarians. These centres are operated by the private companies that supply their own breeds to farmers in Syria either directly or through their offices (agents) in different provinces, and support them later with the extension messages relevant to their breeds with respect to feeding, housing, vaccination programs etc. These offices usually employ trained technical staff (veterinarians and agricultural engineers) to pass messages to

the farmers, thus securing to some extent the success of the production and securing the confidence of the farmers in their company and breeds.

6.1 HIGHLY PATHOGENIC AVIAN INFLUENZA

Although, there were no cases of avian influenza in Syria, the estimated economical losses in the poultry industry reached 150 million US Dollars, according to the rapid assessment report (February, 2006) of an animal health consultant working for the World Bank (Brian Brandenburg). These losses were largely the result of reduced consumption of poultry products.

The impacts of the 2003-2004 outbreaks varied along the market chains and with the type of chain. Industrial chains suffered mainly from export loss. Large commercial producers serving the domestic market suffered from a temporary loss of consumer confidence. Small commercial and backyard producers lost the least in absolute terms but the most in terms of their assets and income. The effect of the changing price on resource poor consumers is undocumented but may have been considerable, since the supply of chickens was reduced for several weeks while the price of alternative meat went up.

Economic analysis to date has focused on the impacts of outbreaks rather than the long-term effects of endemic avian influenza, with small but repeated outbreaks over a number of years. Farmers contracted to large producers tend to suffer less in individual outbreaks as the contracting company supports them in order to stay in production. In the future the poultry sectors are likely to restructure much more rapidly than they might otherwise have done in response to measures to improve bio-security against HPAI. One consequence of restructuring will be that there are fewer small commercial producers and, eventually, fewer backyard products.

Official regulations and interventions to control poultry animal health (in particular HPAI)

In view of the animal health situation in the world (in particular Highly Pathogenic Avian Influenza), the Animal Health Directorate in the Ministry of Agriculture and Agrarian Reform, has had in place since February 2004 a national contingency plan for Avian Influenza to protect the country from the risk posed by this disease.

The components of the national contingency plan are as follows:

A. Establishment of two committees

1. National Steering committee

Deputy Minister of Agriculture	Head of the committee
Director of Animal Health	Deputy Head
Representative of the Farmers' Union	Member
Representative of the Veterinarians' Association	Member
Representative of the Ministry of Health	Member
Representative of the Veterinary Faculty	Member
Head of the Poultry Department	Member
Head of the Infectious Disease Department	Member
Head of the Quarantine Department	Member

Duties of the steering committee:

- To suggest technical regulations to prevent infection from entering to Syria
- To monitor the activities of quarantine stations at national borders
- To monitor the world animal health and public health situation through official international organizations and institutes such as OIE, FAO, WHO etc
- To monitor the health status of poultry in Syria
- To establish working committees at a provisional level

- To receive regular reports from the working committees
- To take the appropriate health and administrative measures in the event of any occurrence of the disease

Main duties of the working committees

- To conduct field surveillance to study the health status of poultry
- To prepare technical reports on the animal health situation in the representative provinces and submit these reports regularly to the steering committee
- To send samples from any flocks where avian influenza is suspected to the Central Veterinary Laboratory in Damascus for testing and evaluation
- To conduct group extension meeting and distribute information leaflets to all persons involved in the poultry sector

2. High Level Committee

The Government established a high level committee, headed by the Prime Minister. The members are:

Minister of Agriculture and Agrarian reform

Minister of Health

Minister of Transport

Minister of Trade and Economics

Minister of Local administration and Environment

Minister of External Affairs

General Customs administration

On 18 October 2005, this committee discussed the steering committee's suggestions and decided on the following:

Avian Influenza disease prevention in Syria

- Continuous surveillance for the disease in the provinces
- Ban on the importation of poultry and poultry products from countries that have cases of avian influenza, with a suggestion to ban importation from all countries for two months
- Provide laboratories with the necessary equipment for avian influenza diagnosis
- Closure of all live bird markets in cities
- Work on establishing stations to monitor the movement of migratory birds over Syria
- Strict health controls at poultry slaughterhouses
- Strict controls at border crossing points

Required procedures in the event of an occurrence of the disease:

- Stamping out to be applied to the infected flocks using the appropriate sanitary methods
- Isolation and typing of the causal virus strain
- Setting up of infected zones and imposition of quarantine
- Ban on the movement of birds from and to infected zones
- Sanctions for failure to inform the veterinary services in the event of disease occurrence

B. Current activities

The veterinary authorities, in cooperation with relevant authorities, are implementing the following:

- Extension programmes at different levels (veterinarians, farmers, general public) conducted through the media and workshops in all regions in the country
- Intensive avian influenza control and investigation campaigns
- Ban on the importation of all poultry and poultry products from all countries
- Application of strict sanitary measures at Syria's international borders
- Closure of all live poultry markets and application of sanitary measures to backyard chickens
- Control of water reservoirs
- Control of poultry movement inside the country
- Coordination with the veterinary authorities in neighboring countries concerning preventive measures
- Testing of all samples submitted to the poultry laboratory; no suspected cases of the disease have been recorded.

6.2 OTHER MAJOR POULTRY DISEASES

For regularly updated information on the status of notifiable and other transboundary poultry diseases, please refer to:

The FAO Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases available at www.fao.org/ag/againfo/programmes/en/empres/home.asp

The OIE World Animal Health Information Database (WAHID) available at www.oie.int

This information has not yet been sourced.

6.3 BIOSECURITY MEASURES

This information has not yet been sourced.

Chapter 7

Current policies, legal framework

Syrian government policies, regulations and laws in the livestock production sector aim to promote investment in this field through provision of loans, taxation, facilitating import and export transactions and the availability of feed and veterinary services. Therefore, the Government is trying to encourage the investment of private capital to expand all aspects of poultry production, from providing chicks up to the delivery of products to the consumer.

Chapter 8

Analysis

8.1 CURRENT STRENGTHS AND WEAKNESSES OF THE POULTRY SECTOR

The following measures are recommended for the Syrian poultry sector:

Measures to be taken by the Government

1. Establish a central technical committee to include representatives from the Ministry of Agriculture, the General Feed Organization and poultry producers from the Union of Agricultural Chambers. This committee should have good knowledge and authority in planning for poultry production, providing licenses for establishing poultry farms and importation of parents and grandparents.
2. Study how the licensing of poultry farms, feed, vaccines and drugs factories and slaughterhouses could be achieved reasonably and practically, in accordance with the development of the poultry industry in Syria and to be able to compete in future with Arabic and European countries.
3. Facilitate the importation of feedstuffs through abolishing taxes, decreasing the fees for certifying documents from abroad and cancellation of unnecessary bank paperwork.
4. Facilitate the procedures of importation and developing work mechanism at ports.
5. Support the central feed laboratory by providing the necessary equipment to carry out the analysis of raw materials and processed feed and establish branches at border points.
6. Support the veterinary laboratories in poultry disease diagnosis and establish branches at borders points for regular examinations.
7. Monitor vaccines, drugs and feed factories, especially unlicensed ones. Encourage investments in the poultry sector, especially in establishing modern slaughterhouses and packing of table eggs.
8. Qualify technicians through training courses and sending them abroad to learn from developing country experience in the fields of breeding, production and marketing of poultry.

Measures to be taken by the Private Sector

1. Cooperate fully with the central technical committee by establishing a statistical office for the poultry producers committee at the union of agricultural chambers, aiming at collecting sound information about the number of poultry farms, parents and grandparents, broilers and layers, the percentage of production and hatching etc. Make this information available to poultry farmers and producers in order to be raise awareness of the current market.
2. Establish an information network to develop poultry production and marketing and connect this network to Arabic and international sites.
3. Establish rules that will control random rearing and the transfer from one type of rearing to another.
4. Encourage the establishment of specific co-operation to support local marketing by organising the process of supply and demand.
5. Establish a savings funds, financed by farmers and producers to help them in time of crisis when prices may be low.
6. Establish funds to support exports when the local profit margins are insufficient.

7. Encourage local private capitals to establish:
    - Automatic slaughterhouses in the main poultry production areas.
    - Automatic equipment for weighing, filling and packing table eggs.
8. Establish a central stockbroker for poultry with branches in Syrian provinces, similar to that in Egypt, in which a committee of large producers and sellers, according to supply and demand, announces daily prices for all poultry products.

8.2 PROSPECTS OF THE POULTRY SECTOR OVER THE NEXT FIVE YEARS

See above

Annex I

Who is who (contact list)

List of Syrian poultry producers

Governorate	Breeding type	Name	Telephone
Damascus	Breeders	Ibrahim, M.	4420959
Damascus	Breeder, Broilers	Almasri,B.	5429194
Damascus	Breeders	Alsaaeb,a.	4418619
Damascus	Broiler Breeder, Grandparents	Amer,S.	6318888
Damascus	Broiler breeder + layer	Saad Aldin, N	4410280
Damascus	Broiler breeder + layer	Algazi,B.	
Damascus	Broiler breeder + layer	Ezo,R.	2321615
Damascus	Broiler breeder + layer	Kossibati,R.	3338072
Damascus	Broiler breeder + layer	Saadaldin,B.	5422406
Damascus	Broiler breeder + layer	Shobash,R.	6333323
Damascus	Broiler Breeders	Khekia,S.	8880285
Damascus	Broiler Breeders	Rishan,S.	
Damascus	Broiler Grandparents	Abdraboo,M.	
Damascus	Broiler Parents	Khalouf,A.	4417419
Damascus	Broiler Parents	Khalouf,M	7811127
Damascus	Broilers	Alboni,H.	4422237
Damascus	Broilers	Almasri,M	4452404
Damascus	Broilers	Ibrahim, F.	5412638
Damascus	Broilers	Military Cooperation	7752053
Damascus	Broilers	Shobash,F.	6316884
Damascus	Broilers	Trkmani,K.	6322040
Damascus	Broilers, Parents	Abohalous,K.	4448870
Damascus	Broilers, Parents	Rahmon,N.	7811480
Damascus	Grandparents	Abdrabou,M	4428308
Damascus	Grandparents	Alsawaf,M.	
Damascus	Grandparents	Dhomeria,H.	5114881
Damascus	Grandparents	Khatib Ahmad	4449437
Damascus	Grandparents	Konkabis,Y.	
Damascus	Layer + Breeder	Ibrahim Azar	4458051
Damascus	Layer + Broilers	General Poultry Organization	5224807

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Governorate	Breeding type	Name	Telephone
Damascus	Layer breeder	Aboratib,H.	5429069
Damascus	Layer breeder	Renie,Z.	5429069
Damascus	Layers	Ahmad, G.	
Damascus	Layers	Ahmer,T.	4453533
Damascus	Layers	Albahri, F.	
Rural Damascus	Layers	Alkatib,N.	7810035
Damascus	Layers	Almalik,A.	
Damascus	Layers	Almalik,A.	5980090
Damascus	Layers	Almasri,I.	5315558
Damascus	Layers	Alsaman,H.	4458690
Damascus	Layers	Alshadad,B.	7220229
Damascus	Layers	Alsheik, B.	5951524
Damascus	Layers	Alsheik,S.	4440000
Damascus	Layers	Altali,L	3337565
Damascus	Layers	Altawil,M.	
Damascus	Layers	Alzaem,T.	5510551
Damascus	Layers	Aozon,G.	4449719
Damascus	Layers	Arbash,A.	7812512
Damascus	Layers	Arbash,M.	7812512
Damascus	Layers	Baheig,A.	
Damascus	Layers	Ghandour,S.	5139571
Damascus	Layers	Habashi, A.	
Damascus	Layers	Haddad,B.	
Damascus	Layers	Hassan, A.	
Damascus	Layers	Hentaia,Y	
Damascus	Layers	Hlal,A.	5940262
Damascus	Layers	Hlalala,A	5940262
Damascus	Layers	Houri,H.	
Damascus	Layers	Ibrahim, A.	
Damascus	Layers	Jadouh,M	
Damascus	Layers	Jamous,G.	5429459
Damascus	Layers	Jamous,R.	
Damascus	Layers	Jomha.M.	5429070
Damascus	Layers	Kahwaji,G.	
Damascus	Layers	Kilani,G.	
Damascus	Layers	Mardini,N.	5429167
Damascus	Layers	Moutad,Y.	3737819

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Governorate	Breeding type	Name	Telephone
Damascus	Layers	Naoum,J.	4449738
Damascus	Layers	Neemei,I	4411120
Damascus	Layers	Rashwan,R.	
Damascus	Layers	Saleh,S.	5429404
Damascus	Layers	Shamas,A.	3338863
Damascus	Layers	Zenati,A.	5429351
Damascus	Layers	Zeto,W.	4449292
Damascus	Layers, Broiler, Parents	Khalouf,M.	7811159
Damascus	Layers	Awargi,M.	
Damascus	Layers	Khalaf,H.	
Damascus	Layers	Khatish,N.	
Damascus	Layers	Zahra,A.	
Damascus	Layers	Higazi,G.	
Damascus	Layers	Akil,M.	
Damascus	Layers	Dimas,O.	
Damascus	Parents	Khalaf,M.	
Damascus	Layers	Almalik,A.	
Damascus	Layers	Frashi,M.	
Damascus	Layers	Jadou,M.	
Damascus	Layers	Alsaleh,M.	
Damascus	Layers	Diab,Y.	
Homs	Broiler Parents	Abood,J.	
Homs	Broiler Parents	Abood,H.	
Homs	Broiler Parents	Hana,E.	
Homs	Broiler Parents	Alnajar,S.	
Homs	Broiler Parents	Alashraf,T.	
Homs	Broiler Parents	Alsiad,F.	
Homs	Broiler Parents	Alholou,J.	238230
Homs	Broiler Parents	Alsiad, G.	426856
Homs	Broiler Parents	Alrashad,K.	239791
Homs	Broiler Parents	Masouh,J.	478906
Homs	Broiler Parents	Soliman,N.	
Homs	Broiler Parents	Boueta,M.	
Homs	Broiler Parents	Shahin,S.	235050
Homs	Broiler Parents	Daoud,A.	464000
Homs	Broiler Parents	Daoud,F.	464002
Homs	Broiler Parents	Badawi,A.	738462

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Governorate	Breeding type	Name	Telephone
Homs	Broiler Parents	Yaghoub,J.	
Homs	Broiler Parents	Dabic,K.	
Homs	Broiler Parents	Sinbila,M.	
Homs	Broiler Parents	Alhag,M.	
Homs	Broiler Parents	Khori,G.	
Homs	Broiler Parents	Swid,M.	
Homs	Broiler Parents	Aleliwi,Z.	
Homs	Broiler Parents	Alyousf,R.	
Homs	Broiler Parents	Neemeh,M.	
Homs	Broiler Parents	Shami,S.	
Homs	Broiler Parents	Badawi,A.	472530
Homs	Broiler Parents	Daoud,T.	464000
Homs	Broiler Parents	Daoud,M.	467666
Homs	Broiler Parents	Daoud,F.	464002
Homs	Broiler Parents	Aboud,Y.	
Homs	Broiler Parents	Masouh,J.	478906
Homs	Broiler Parents	Eita, A.	
Homs	Broiler Parents	Alholou,J.	225272
Homs	Broiler Parents	Alsalam,S.	851210
Homs	Broiler Parents	Alsalam,O.	852550
Homs	Broiler Parents/ Grandparents	Alsiad,G.	426856
Homs	Broilers	Aletrini,Y.	733733
Homs	Broilers	Almnajed,M.	482555
Homs	Broilers	Nakoula,F.	730072
Homs	Broilers	A'ad,G.	480778
Homs	Broilers	Hamwia,A.	237162
Homs	Broilers	Droubi,E.	
Homs	Broilers	Simbli,S.	223032
Homs	Broilers	Almahdi,Y.	231740
Homs	Broilers	Noria,T.	
Homs	Broilers/Parents	Daoud,G.	739005
Homs	Layers	Rafik,J.	738431
Homs	Layers	Sahloul,A.	471125
Homs	Layers	Hanoun,F.	541510
Homs	Layers	Rafik,G.	739431
Hama	Broilers	Abdalla,A.	812472
Hama	Broiler Parents	Habal,A.	516008

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Governorate	Breeding type	Name	Telephone
Hama	Broiler Parents	Alzaeim,M.	416891
Hama	Broilers	Zino,H.	867106
Hama	Broilers	Khdour,I.	812692
Hama	Broilers	Monajed,K.	814205
Hama	Broiler Parents	Khtan,A.	424802
Hama	Broiler Parents	Kaimeha,A.	222104
Hama	Broilers	Rostom,N.	814205
Hama	Broiler Parents	Na'ssan,S.	
Hama	Broilers	Alfaraj,N.	
Hama	Broilers	Fhakouri,M.	5432017
Hama	Broilers	Zouir,A.	817762
Hama	Broiler Parents	Tohmaz,M.	418946
Hama	Broiler Parents	Yousfan,A	410135
Hama	Broiler Parents	Zinou,M.	867806
Hama	Broiler Parents	Sbahi,H.	
Hama	Broiler Parents	Klas,M.	
Hama	Broiler Parents	Koujan,H.	
Hama	Broiler Parents	Arafi,B.	
Hama	Broiler Parents	Khsab,M.	
Hama	Broilers	Mradaga,H.	418946
Hama	Broilers	Karat,A.	
Hama	Broilers	Aboud, S.	410656
Hama	Broilers	Alkhatib.M.	813736
Hama	Broilers	Dhaoun,A.	
Hama	Broilers	Alsarout,A.	
Hama	Broilers	Alhalak,A.	
Tartous	Broilers	Dib,E.	
Tartous	Layers	Haroun,M.	321888
Tartous	Broiler Parents	Sarah,S.	319065
Tartous	Layers	Wanous,M.	315178
Tartous	Broilers	Rfaia,N.	
Tartous	Broilers	Aljouf.Y.	
Tartous	Broiler Parents	Bitar,y	
Lattakia	Broiler Parents	Alkourba,M.	475664
Lattakia	Broiler Parents	Abdin,S.	781656
Lattakia	Layers/Broilers/Parents	General Poultry Organization	
Lattakia	Broilers	Marouf,I.	480232

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Governorate	Breeding type	Name	Telephone
Lattakia	Broilers	Alnafouri,M.	471605
Lattakia	Broilers	Eige, D.	791067
Lattakia	Broilers	S'aad, M.	422624
Lattakia	Broilers	Saloukha,S.	463887
Lattakia	Broilers	Khahile,R.	222237
Lattakia	Broilers	Malah,M.	428505
Lattakia	Broilers	Hana,S.	480054
Lattakia	Broilers	Sabouh,T.	830373
Lattakia	Broilers	Radwan,M.	481156
Lattakia	Broilers	Hilwa,M.	771112
Lattakia	Broilers	Shiekalrahim,M.	221750
Lattakia	Broilers	Abass, S.	416629
Idleb	Broiler Parents	Hisnawi,E.	830558
Idleb	Broilers	Aboud,N.	232187
Idleb	Broilers	Alraei,H.	238569
Idleb	Broilers	Hasson,A.	400254
Idleb	Broilers	Mordia'a,Y.	233415
Idleb	Broilers	Khalil, K.	730357
Idleb	Broilers	Kalil,S.	730357
Qunitera	Broilers	Alkhatib,F.	226157
Qunitera	Broilers	Diab,A.	226151
Qunitera	Broilers	Alzib,Y.	226222
Qunitera	Broilers	Alfrik, M.	224280
Qunitera	Broilers	Almhawish,A.	226128
Qunitera	Broilers	Alaskar,I	226160
Qunitera	Broilers	Alkhatib,A.	
Qunitera	Broilers	Alahmad,M.	221855
Qunitera	Broilers	Dakhllala,J.	221787
Qunitera	Broilers	Alzib,J.	226145
Aleppo	Broiler & Layers Parents	Fatal,zakaria	
Aleppo	Broiler Parents	Samona,W.	
Aleppo	Broiler Parents	Alkalid,M.	
Aleppo	Broiler Parents	Alzaeim,R.	
Aleppo	Broiler Parents	Zitouni,W.	
Aleppo	Broiler Parents	Kiali,I.	
Aleppo	Broiler Parents	Rashid,F.	
Aleppo	Broiler Parents/Layers	Alhafar,M.	

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Governorate	Breeding type	Name	Telephone
Aleppo	Broilers	Danou,I.	
Aleppo	Layers	Naji,M.	
Aleppo	Layers	Somakia,S.	
Aleppo	Layers	Abodan,S.	
Aleppo	Layers	Fardosi,K.	3628234
Dara'a	Broilers	Alsikari,Z.	240702
Dara'a	Broilers	Ktifan,J.	240742
Dara'a	Broilers	Nkawa,I.	231822
Dara'a	Broilers	Abolamour,A.	237465
Dara'a	Broiler Parents	Aboualzarfan,R.	6312910
Dara'a	Broiler Parents	Alkadi,Y.	6331372
Dara'a	Broiler Parents	Alrfaei,H.	241226
Dara'a	Broiler Parents	Alissa,M.	6332624
Dara'a	Broilers	Almasri,W.	238110
Dara'a	Broilers	Alnashie,O.	241406
Dara'a	Broilers	Alnashie,A.	234935
Dara'a	Broilers	Almaalouf,R.	851468
Dara'a	Broiler Parents	Brmawi,Y.	237619
Dara'a	Layers	Almaalouf,S.	
Dara'a	Broilers	Alrifaei,M.	238140
Dara'a	Broilers	Raslan,N.	221723
Dara'a	Layers	Swidan,N	
Dara'a	Broilers	Akiel,S.	241182
Dara'a	Broilers	Alsikari,B.	247338
Dara'a	Broilers	Alziebi,A.	248243
Dara'a	Broilers	Alkirdi,K.	
Dara'a	Broilers	Alshiblat,I.	
Dara'a	Broilers	Alfalah,M.	
Dara'a	Broilers	Almousili,M.	
Dara'a	Broilers	Alsaadi,Y.	
Dara'a	Broilers	Alhalki,A.	871153
Dara'a	Broilers	Hatahtie,A.	222145
Dara'a	Broilers	Alokla,N.	
Swida	Broilers	Alafif,J.	233696
Swida	Broilers	Alkotwa,A.	222285
Swida	Broilers	Hamza,S.	271163
Swida	Broilers	Nassar,K.	231828

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Governorate	Breeding type	Name	Telephone
Swida	Broilers	Alsanieh,R.	225885
Swida	Broilers	Shalwit,F.	243662
Swida	Broilers	Wehba,S.	
Swida	Broilers	Kashour,A.	710650
Swida	Broilers	Rashid,K.	
Swida	Broilers	Altira,G.	
Swida	Broilers	Raslan,R.	230546

Annex II

List of major projects – poultry sector

This information has not yet been sourced.

Annex III

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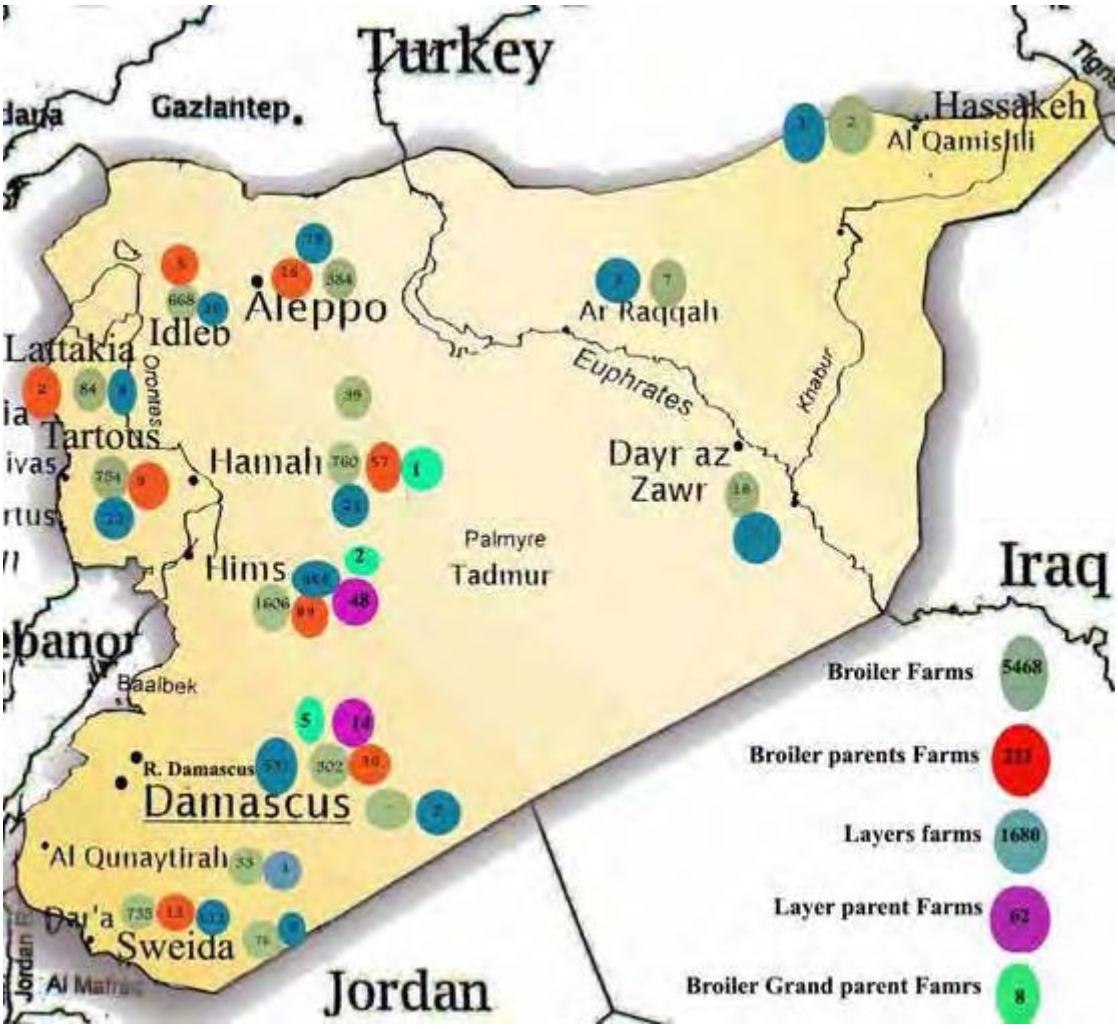
Annex IV

MAPS



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