



## Organic Poultry in Turkey Poultry Industry

<sup>a</sup>Fatma Yenilmez \*, <sup>b</sup>Emine Uruk

<sup>a</sup>Cukurova University, Tufanbeyli Vocational High School, Adana

<sup>b</sup>Food, Agriculture and Livestock Ministry, 01330 Adana

\*Corresponding author: fyenilmez@cu.edu.tr

### Abstract

The present study is prepared to focus on the organic poultry production in Turkey poultry industry. Poultry industry has used the latest technology and has a strategical importance for supplying animal protein in Turkey. Organic poultry has initiated without official legislation in 1985. In recent years, organic poultry production industry has become a popular alternative to the conventional production of egg and meat with the awareness of consumers in Turkey. According to the data of 2013 published by the Ministry of Food, Agriculture and Livestock, there are 24 enterprises performing organic poultry farming in Turkey. According to the data of 2013 published by the Ministry of Food, Agriculture and Livestock and Turkish Statistical Institute (TSI), organic broiler and broiler meat productions have a 0,1% share while the organic laying hen's production and egg production have 0,3% and 0,6% share in the enterprises, respectively. That amount is expected to increase because of the increasing conscious of consumers for their life style.

**Keywords:** Turkish poultry industry, organic poultry, production

### Türkiye Tavukçuluğunda Organik Tavukçuluğun Yeri ve Önemi

#### Özet

Bu çalışma ile son zamanlarda geniş bir uygulama alanı bulan organik tavukçuluğun ülkemiz tavukçuluğu içerisindeki yeri ve önemi ortaya koyulmuştur. Günümüzde tavukçuluk sektörü, ülkemiz hayvancılık faaliyetleri içerisinde son teknolojiyi takip eden bir üretim kolu olarak ekonomiye önemli katkılarda bulunmaktadır. Son yıllarda tüketici tercihlerine bağlı olarak ön plana çıkan organik tavukçuluk, ilk kez 1985 yılında herhangi bir mevzuata dayalı olmadan başlamışken, günümüzde tavukçuluk faaliyetleri içerisinde kendisine önemli bir pay edinmiş ve giderek artan ürün yelpazesi ile bu payını gün geçtikçe genişletmiştir. Gıda, Tarım ve Hayvancılık Bakanlığı 2013 yılı verilerine göre Türkiye'de 24 adet organik kanatlı yetiştiriciliği yapan işletme mevcuttur. Bu işletmelerin Gıda, Tarım ve Hayvancılık Bakanlığı ve TÜİK 2013 verilerine göre üretimdeki payları incelendiğinde, organik broiler ve broiler eti üretimi %0,1'lik paylara sahipken, yumurtacı tavuk ve yumurta üretimi %0,6 ve %0,3'lük paya sahiptir. Bu miktarın gelişen toplum bilinci ve artan tüketici talepleri doğrultusunda gün geçtikçe artması beklenmektedir.

**Anahtar Kelimeler:** Türkiye tavukçuluğu, organik tavukçuluk, üretim.

### Introduction

Rapid increase of the world population gives rise to the increase in the food needs as well. The demand for the foods of animal origin which play an important role in our diet and satisfying such an important percentage of the daily protein need of an adult as approximately 1/2 continues to grow with each passing day. The meat and egg of chickens have a significant importance and role among the foods of animal origin thanks to the fact that their production is easy and cheap, their

digestibility is high and they are healthy and nutritional. In order to meet increasing food demand, commercial poultry breeders raised more rapidly growing animals and increased the number of animals per unit area for the purpose of obtaining the highest productivity possible from these animals with the lowest cost and adopted some productive applications to enhance their performances. These applications which were performed in an uncontrolled way, in turn, led to

some food safety problems in terms of human health.

Within the scope of the alternative system searches concerning the elimination of the negative effects of modern agriculture implementations both on human health and on animals and environment, organic agriculture which is an environmentally friendly and nature conscious method has started to be developed in time as a starting point. (Ozturk et al., 2013).

Being developed together with the organic (ecological) agriculture and coming to the foreground among the organic livestock activities depending on the customers' preferences thanks to its being healthy and cheap, organic poultry has also gained a seat in the industry. Organic poultry is defined as a production model where the animals are allowed to exhibit all their natural behaviours; in other words; where the use of synthetic and chemical compounds are minimized in nutrition, health and protection activities intended for the animals and the rights and welfares of animals are privileged (Ceylan, 2014).

Being started to be performed in an unconscious way for the purpose of meeting the meat and egg needs of families long time ago, organic poultry has turned into commercial organizations in today's world and it keeps increasing its product range day by day in line with

the growing public awareness and consumer demands.

### Poultry Production in Turkey

The first step for the development of the poultry industry in Turkey was taken with the establishment of the Central Poultry Research Institute in Ankara in the year of 1930 and it can be said that the studies carried out paved the way for the developments observed in our poultry industry after 1960's discounting the fact that no significant development took place until 1960 apart from the institutional trends (Akbay et al., 1995; Turkoglu et al., 2004).

While the poultry industry was getting into act in the manner of a family owned business with an expensive and limited production capacity in 1970s, it managed to keep pace with the world standards and took its current shape through continuous production activities as a result of the significant investment towards the end of 1990s by means of undergoing a structural variation upon the increase observed in the number of the integrated chicken facilities in 1980s and the implementation of the contracted production model.

There are currently 80 hatcheries, 322 breeding enterprise, 9.444 commercial broiler enterprise, 994 commercial laying hen enterprise the total of which is 10.840 (Table 1).

**Table 1.** The Number of Poultry Enterprises by Years

Years	Hatchery	Breeding Enterprise	Commercial Broiler Enterprise	Commercial Laying Hen Enterprise	Total
2006	82	238	8.899	1.304	10.523
2007	81	248	8.919	1.195	10.443
2008	81	247	8.948	1.075	10.351
2009	90	274	8.827	1.078	10.269
2010	79	277	8.908	1.72	10.410
2011	79	276	9.164	1.042	10.561
2012	78	302	9.403	1.050	10.900
2013	80	322	9.444	994	10.840

**Resource:** The Ministry of Food, Agriculture and Livestock, 2014.

While the production level of the poultry meat in 1990 was 216.759 tons, it increased to the production level of 1.758.363 in 2013. Approximately 16,5 billion egg production takes place on a yearly basis (Table 2). According to the data provided for the year of 2012, the poultry export rate of Turkey is 326.249 tons whereas the

egg export rate is 4 million pieces. When all these figures are taken into consideration, it can be said that poultry industry is the number one animal protein source of our country (Turkish Poultry Meat Producers and Breeders Association-BESD-BIR, 2014; Turkish Egg Producers Association-YUM-BIR, 2012).

**Table 2.** The Amounts of the Poultry Products by Years

Years	Production Egg (Million Number)	Chicken Meat (Ton)
1990	7.699	216.759
1995	10.269	417.539
2000	7.245	752.382
2005	12.050	936.697
2010	11.841	1.444.059
2011	12.955	1.613.309
2012	14.911	1.723.919
2013	16.497	1.758.363

**Resource:** Civaner, 2007; Dinler, 2003; The Ministry of Food, Agriculture and Livestock, 2014.

### Organic Poultry in Turkey

Rapid population increase and accordingly the intensity of the demand for agricultural products led to the animal production to be performed in a conventional way like plant production. As the acquisition of large amount of and economical products from the unit area is essential in this production understanding, the criteria of ecological balance and health in product quality have been pushed into the background. As a consequence, the detrimental effects of conventional animal production for the environment, animals and people have currently revealed themselves just like conventional plant production.

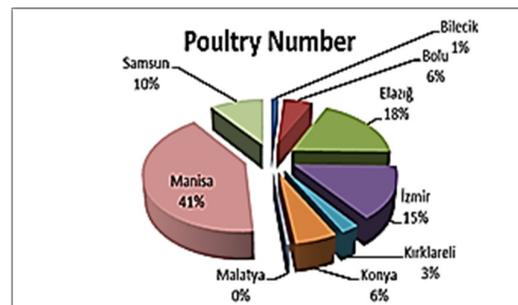
In conventional livestock, some feed (plant and animal origin) and ingredient problems arose due to the stocking density resulting from the number of animals in poultry house as well as to the insufficient labour force. Besides all these problems with respect to conventional animal production, the animal welfare has gradually gained importance at the social level in developed countries thanks to attention paid to the animal rights. Organic animal production has come to the foreground in order to both prevent the problems with regard to conventional animal production and take animal welfare into account.

Organic poultry raising is being performed in such poultry houses that comply with organic production conditions and in accordance with the rules of organic animal breeding and veterinary intervention. Within this scope, such animals that are brought from the managements handling their production activities with the organic agriculture method, are fed with fully organic feeds and are

resistant to the environment and weather conditions as well as diseases and whose genetic structures have not been modified are used. The products, on the other hand, are approved and certified by authorized bodies (Anonymous, 2014).

Organic animal production activities in our country were started in the years of 1984-1985 when European countries requested organic products from Turkey and took place as only beekeeping and honey production for many years. In recent years, animal production has made progress in parallel with organic agriculture and such products as meat, milk, yoghurt, cheese and egg have started to take their places in the organic products market. The first organic production in the poultry industry was commenced by a firm in the year of 1999 as plateau chicken (even not being fully organic); however, it was taken off the market due to insufficient attention and interest (Ceylan, 2014).

Relevant data concerning organic layer hen raising are encountered with as from 2004 while the data on organic broiler raising are encountered with as of 2008.



**Figure 1.** Poultry Population by Cities

**Table 3.** Organic Poultry Data by Cities

Cities	Poultry Species	Total Number of Farmers	Total Number of Poultry	Total Amount of Meat (ton)	Total Amount of Egg (number)
Bilecik	Broiler	0	500	0,00	0
	Layer hens	1	4.500	0,00	0
Bolu	Layer hens	1	19.787	0,00	5.777.804
Elazığ	Broiler	1	21.000	40,00	0
	Layer hens	0	43.237	0,00	7.823.000
Izmir	Broiler	4	27.112	60,36	0
	Layer hens	0	23.840	0,00	4.645.000
Kırklareli	Layer hens	1	8.720	0,00	2.546.240
Konya	Layer hens	1	19.777	0,00	5.774.884
Malatya	Layer hens	1	1.500	0,00	0
Manisa	Broiler	13	103.300	929,70	0
	Layer hens	0	42.000	0,00	12.210.000
Samsun	Layer hens	1	35.974	588,00	9.263.850
General Total		24	351.247	1618,06	48.040.778

**Resource:** The Ministry of Food, Agriculture and Livestock, 2014.

Organic poultry production has been performed in totally 9 cities of Turkey by 24 farmers. Manisa ranks on the top by producing 42.000 chickens, 12.210.000 eggs, 103.300 chickens and 929,70 tons of poultry meat (Figure 1). According to the date for the year of 2013, organic egg production has been performed by 6 manufacturers in Turkey and totally 199.335 pieces of organic eggs have been produced with 199.335 chickens (Table 3).

#### The Role of Organic Poultry in Poultry Industry

Organic animal production has a lower share in Turkey in comparison with organic plant production; however, it shows increase with each passing day. Despite of the fact that organic livestock potential is high in Turkey, such potential is not fully made use of. This is the major source of the current problem. Consumers purchase such products in return for high costs as Turkey lacks of an association or cooperative system for marketing the organic products. The delivery of the organic products to consumers, the provision of trainings for the producers on this regard and relevant consultancy services are rendered by cooperatives in European Union countries. The implementation of sufficient support programs which can encourage producers in our country in the field of organic livestock and the performance of a production plan will be able to ensure significant developments on this regard. The fact that the

managements situated in Turkey are small-scaled and close to each other causes some chemicals used in the operations performing conventional production activities to affect organic production process in a negative way. (Selcuk and Sacaklı, 2007).

As is in organic livestock, there are certain problems in organic poultry as well. One of the major challenges is the confusion of organic production by the consumer with village type production. In a survey conducted, it is concluded that the majority of the society is unaware of organic products; some of them have such wrong information that natural products and organic (ecological) products are the same and accordingly inorganic products are released to the market as if they were organic (Armagan and Ozdogan, 2005; Durmus et al., 2007). In many district bazaars, normal eggs and fake layer hens are being sold respectively as organic eggs and farm chickens. Another important point is the hesitations whether the managements performing organic production activities adhere to the legal regulations (Ceylan, 2014). When the current conditions of Turkey are taken into account, the differences between product prices inhibit the preferences of consumers. While the price of 1 kg poultry meat produced in a conventional way is 5.95 TL, the price of an organic chicken is about 32 TL. Similarly, while the price of 1 egg produced in a conventional way is 0,250 TL, the price of organic egg is

approximately 1,065 TL. Such kinds of problems will be able to be removed by means of raising the awareness of consumers and expanding the scope of inspection.

In 2004, there were 1 producer, 250 layer hens and 92.500 piece/year egg production in Turkey, today's figures are 24 producers, 351.247 chickens, 1618,06 tons of poultry meat and 48.040.778 piece/year organic egg production (Table 4).

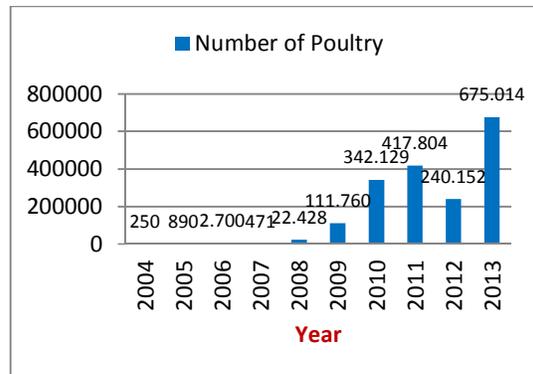
**Table 4.** Organic Poultry Production.

	2004	2010	2011	2012	2013
Number of farmers (Number)	1	15	9	11	24
Number of Broiler (Number)	-	273.910	325.436	100.970	151.912
Number of Laying hen (Number)	250	68.219	92.368	139.182	523.102
Number of poultry (Number)	250	342.129	417.804	240.152	675.014
Poultry meat production (Tons)	-	550,00	713,06	210,31	1.618,06
Eggs production (Number)	92.500	17.889.808	26.236.920	36.105.556	48.040.778

**Resource:** Ministry of Food, Agriculture and Livestock (2014).

According to the data obtained from the Ministry of Food, Agriculture and Livestock and TSI (Turkish Statistical Institute), while the shares of organic broiler and broiler meat production in production activities in 2010 were respectively 0,17% and 0,04%, these shares increased to 0,09% in 2013. The shares of organic chicken and egg production, on the other hand, was 0,10% and 0,15% in the year of 2010, it increased to respectively 0,59% and 0,29% in 2013 (Table 4).

Organic poultry raising in Turkey whose statistical data date back to 2004 started to increase in 2008 and showed a rapid increase by the year of 2011. It can be said that the decrease trend observed after this period not originates from the insufficiency of the production activities but stems from the changes taking place in the registration system and organic standards. It reached to the peak level in 2013 (Figure 2).



**Figure 2.** The Distribution of Poultry Number by Years

## Conclusion

Superiority of organic poultry in terms of animal welfare and animal rights as well as environmentally friendly nature of it is highly important for its preference in raising. In addition, the fact that it is a different raising system thanks to the restriction of the use of various chemical additives, drugs and antibiotics and offers a more different, delicious, healthy and reliable poultry meat than traditional poultry meats depending on the use of slowly growing chicken races will stand out as the effective factors for it prefer ability.

It is inevitable that the share of organic poultry in Turkish poultry industry and the product diversity will improve in the future in line with the preferences of consumers who become more aware gradually and their ever increasing demands.

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