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# AWARENESS LEVEL OF LEADER WOMEN FARMERS ABOUT ORGANIC LIVESTOCK

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#### Abstract

Intensive livestock animal production has been preferred in order to meet food requirements of increasing population since 1950's. However, especially in baby foods, organic farming products are getting preferred because of any harmfull supplements in natural conditions. Organic farming is getting popular because of increasing demand for natural foods especially in baby foods and higher incomed peoples. At the same time, organic animal products are being preferred as a new trend. Lack of environmental pollutants, large scale of agricultural lands and the presence of native breed livestock animals provide the significant opportunities for the promotion of organic livestock in Turkey. However, Turkey has not met the demand for animal products produced as organic. Small scale livestock enterprise, low education level and inefficient producer organizations are lead to this results. In this study, awareness level of the leader women farmers who have higher education and leadership skills than the other women farmers on organic livestock animal production was determined.

**Keywords:** Organic livestock, animal production, leader woman farmer.

# Introduction

Increasing World population caused the growing demand of agricultural products. And this converted traditional farming to intensify farming just as animal and vegetable production. In intensive animal production, the main purpose is getting higher income in each unit area. Slaughterhouse by products and various additives were used unconsciously and this caused environmental pollution and consequently reduced product quality. As a matter of fact, excess and unconsciously medicine and fertilizer using in animal production caused medicine and nitrate residues in food of animal origin. This caused some health problems in humans such as; nitrate pollutions, cancers, Bovine Spongiform Ensefalopati (BSE) and Creutzfeldt Jacop (CJ).

World Health Organisation (WHO) have declared, unconsciously consumption of antibiotics can be ineffective on ear and quinsy infections in humans. Thats why, in order to prevent possible health problems and to protect environmental some countries trying to

develop organic animal production. According to International International Federation of Organic Agriculture Movements (IFOAM) report, in 2009 organic farming is done in 160 countries with 1.8 million farms and 37.2 million ha. (Anonymous, 2011a). Organic farming is doing in the World at 79.2 million ha, including collecting (Anonymous, 2011b). This datas show that organic farming is getting increase and popular. In Turkey, between 2002-2010 years, the number of organic farmers increased from 10 thousands to 40 thousands, farming areas were increased from 90 tousands ha to 510 thousands ha; the amount of production was increased from 310 thousands to 1.343 million tonnes. Last two years production was increased, but the amount of organic products were not enough according to 2010 datas, the amount of produced organic meat, milk and egg were 6803, 11.605 tonnes and 17. 890 thousands in Turkey. This production levels have lower share the 0,1 % percentage of total production (Öztürk, 2011). In the light of these datas, Turkey can not reflect its organic agricultural

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trade potantial. Turkey is a favorite county for organic farming considering its abundance of diversity and different ecosystems. Animal production is generally as extensive and low input were used. Small ruminants were commonly reared in grasslands and in mostly feed requirements of animals were supplied approximately 80-90 % in natural grazing lands such as pasture and plateu areas.

In general, farmers have native bred animals which resistant to disease. Average income of farmers were low per animal. Low incoming of rural peoples cause to migration from village to cities. This is the reason of over population of cities and leads to some social and cultural problems (Özen et al. 2013). Almost all of organic products are exported to especially USA, EU, Japan and other countries. Except honey bee products, all of exported products are vegetable origin. Nowadays, there is an drawing of attention to organic products in domestic markets (Ak, 2008).

It is difficult to export organic animal products except honey bee products. In domestic market, our consumers have low income and irrelevant for organic products. This stituation organic animal production consumption. So in order to develop animal production, governmental subsidy is required. According to 2001 datas, in our country 97.6 % of our farms have vegetable and animal production together. This situation is a disadvantage for intensive farming but, an advantage for organic animal production. Unpolluted regions of country such as Eastern Anatolia, have important potentials for organic production. However, lack animal knowledge on organic farming and animal diseases cause in difficulties on exportation and prevent organic animal production. There are only a few farms which produce organic animal products. However, Ecologic dairy farm in Kelkit Valley supported by Doğan Foundation is the most famous and detailed farm in Turkey. Wheat ecologic life support organization is leading a Project for ecologic and Kantar, tourism (Ak 2007). Approximately 30 % of the population of Turkey employs in agriculture. 51 % of employed are womens. Womens are generally deal with animal breeding other than vegetable production which more equipment used. It is important to emphsized womens for organic animal breeding and agriculture product processing in order to extension. It is important getting womens to be conscious. In this research, women farmer leaders were used in order to collect datas because of their conscious and higher levels of knowledge and skill.

#### Material and methods

The main material of this study was a survey applied to 40 leading women farmers who participated in World Farmer Woman Day arranged by Diyarbakır Provincial Food, Agriculture and Livestock Directorate on 25 October 2012. A questionnaire was designed and used as instrument for primary data collection. The data obtained from the result of survey were analyzed by using SPSS statistical analysis software (SPSS Institute Inc. 2012).

## Results and discussion

Rural economic welfare can be obtained by optimal using of animal sources which is one of the basic elements. It is the basic element of sustainable animal breeding and grassland protection for supplying roughage requirements of animal production. It is too important that roughage requirements of animals should be met by feed crops or grassland from it is own areas. In order to get low cost animal production this should be done. Only 7.5% of participants declared that they have used only grassland for animal production, rest of them did not use only grasslands (Table 1). Total grassland and pasture areas of Turkey is approximately 14 million ha (Demirel and Demirel, 2012). However, lack of grassland improvement, it's productivity is getting poor. So, grazing of grasslands should be controlled and sowing of feed crops are to important for improving grasslands and pastures.

Table 1. Lead	ing women t	farmers resp	onse: Do vo	u perform th	e extensive	animal bi	reeding in	nasture?
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Response	Frequence	Percent
Yes	3	7.5
No	37	92.5
Total	40	100

It's asked to participants if they have enough knowledge on organic feeds. 37.5% of them declared that they have heard it, but 62.5 % of them did not heard it (Table 2). Organic feeds are required for organic animal production. In developed countries 30% of total farmlands are used for fodder crops however in Turkey, this percentage is approximately 3%. According to the datas of 2008, total organic feed production is 64.112 tonnes and this should be increased (Anonymous, 2009) As seen in Table 3, participants have knowledge on organic animal production, but they did not know organic feeds. This shows that organic feeds has not adequately introduced to

participants. Producers should be educated on organic feeds. So, The Ministry of Food, Agriculture and Livestock and Universities should be give seminers, symposiums, panels on organic farming. Some documents can be supply to producers. The researches which have been carried out on organic farming should be supported. Subsidy levels can be increased. It is too important that native seeds and animal breeds should be used in organic farming, adapted easily to climate and soil. There are lots of native breed or seed in agricultural production in Turkey. It is competibility is too high for organic production (Gök, 2008).

Table 2. Leading women farmers response: Do you have any information about organic feeds?

Response	Frequence	Percent
Yes	15	37.5
No	25	62.5
Total	40	100

It is asked to participants if they have enough knowledge on organic animal production (Table 3). 42.5 % of them declared that they have knowledge on it, 32.5 % of them said that they did not know it, however 10 % of them did not answer the question. It was seen that participiants were found conscious about organic animal breeding. Domestic consumer seems not enough conscious about organic products, so organic product demand and

consumption are not satisfactory. All people from primary education to university, in all education structure should be conscious about organic farming. Some industries (agricultural medicine, veterinary medicine, chemical fertilizer, concentrate feed, feed additives, meat and milk integrations etc.) effect negatively organic animal breeding. However, in EU countries, there are huge subsidies for organic animal production.

Table 3. Leading women farmers response: Do you have any information about organic animal production?

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Response	Frequence	Percent
No answer	4	10
Yes	17	42.5
No	13	32.5
Particularly	6	15.0
Total	40	100

When we asked to participant if they want to do organic animal breeding, 47.5 % of them declared that organic products are cheap (Table 4). In fact, because of low organic

production, 12.5 of them stated that in difficulties in performing organic animal production. Ak and Kantar (2007), stated that especially in winter months, in order to meet

roughage requirements of animals, organic feed crops should be growned in avaible areas. In organic farming soil preparing, seeding, fertilizing, irrigation, struggle for pest and herb are different comparing with traditional farming. But it is possible that by doing little changing for organic production. 4 of participants did not answer the question. In order to make competitive production in foreign markets it should be constituted secure

organic production (Turan and Öztürk, 2009). "Environmental protection awairness" should be raised and debated detaily by the society. Especially, baby child and pregnants need organic farming products. In order to intensify organic products for childs, hospitals, social serving foundations, legal arrangements should be done.

Table 4. The causes leading women farmers response: Do you want to do organic animal production?

Response	Frequence	Percent
No answer	4	10.0
Low income in organic production	19	47.5
Low information level about organic production	12	30.0
It's difficult to the organic animal farming	5	12.5
Total	40	100

As seen in Table 5, % 45 of participants have big ruminants, and this was followed by 15 % and 2.5 % for sheep, sheep and goat together respectively. Small ruminants are available for organic animal production. But this is too low in Turkey. So, small animal production should be suggested and subsidied in Turkey. In recent years, peoples want to go out of the cities and spend their holidays in organic animal breeding farms in as called Ecotourism. In 21 EU countries, 17 thousands of firms supply to peoples for spend their holidays in ecologic farms (Caber, 2008). This is too important for rural peoples for increase their organic animal production. In order to

prevent negative effects of chemicals on organic production, small and close to each other firms can be constructed as organic production valleys. Productivity is too important for sustainable low cost organic production and at the same time, controlling and certification should be done strictly. Domestic firms can control production process in order to lower their production costs. In rural areas input cost is lower for extensive animal breeding. Much of cost elements can be obtained from rural area, especially in small ruminant animal production. Higher income of rural organic farmers should be considered for rural development and it is a good alternative.

Table 5. Livestock types owned by the farmers

Animal	Frequency	Percentage (%)
Sheep Cattle	6	15
Cattle	18	45
Sheep, cattle	1	2.5
No-one	15	37.5
Total	40	100.0

# Conclusions

Women farmers have environmental and social sensitivities and share higher percentages of animal production. So it is too important to educate them for organic animal production as primary group. As seen in research findings, leader women farmers have not enough knowledge for organic animal production, despite their awareness levels are higher that of other women farmers. That's why organic farms should be subsidied for organic

production, consumers should be educated, education programs should be done for organic animal production.

Organic potentials of Turkey is not used yet enough. The most important reason of it is lack of breeeders organizations for organic production. Certification process is a basic fundamental in organic production. This process is a difficulty for our small organic animal producing farms. Organic agricultural valley can be organized, they can supported

for producer organizations and certification process can be apply for lowering cost of this process. Producer organizations can be effective for marketing organic products. Lack of such organizations in Turkey, marketing process can be done by stock broker and this causes low income of organic farmers. So, our consumers are getting organic products expensively. In EU countries, all organic production steps controlled by producer organizations and consequently, consumers get products cheaper. In order to developed our organic farm production in Turkey we should follow this steps. Rural pastures should be used consciously, arrange animal numbers, farmer organizations, activated legal arrangements should be done.

## References

- 1. Anonymous, 2009. The Ministry of Food, Agriculture and Animal Records, Ankara. ww.tarim.gov.tr/uretim/ organik\_tarim/organik\_tarim\_istatistikleri.html. (Access date: 7.07.2015).
- 2. Anonymous, 2009b. Ankara Trade Chamber's Animal Production Report. <a href="http://www.atonet.org.tr">http://www.atonet.org.tr</a> (Access date: 7.07.2015).
- 3. Anonymous, 2011a. The world of Organic Agriculture. http://www.ifoam.org. 23.02.2011 The World of Organic Agriculture 2011 is launched. (Access date: 04.07.2015).
- 4. Anonymous, 2011b. Organic agricultural land and crops. http://www.organic-world.net/yearbook-2011-tables.html, Last update: June 22, 2011. (Access date: 04.07.2015).
- Ak, I ve Kantar, F. 2007. Organic Animal Production and Potantial in the future in Turkey. Turkey I. Organic Agriculture Congress 19-20 Ekim 2007. Bahçeşehir Üniversity, İstanbul.
- 6. AK, I. 2008. Ecologic/Organic Agriculture and Enviroment. Ecologic Life Publishing. No:1, Özsan Press Bursa, 398 s.
- 7. Gök, S.A. 2008. Considering Organic Agricultural Product Trade of Turkey in Growing EU Market. EU Specialist Thesis. Ankara. http://abdgm.tarim.gov.tr. /ABU\_files/Tezler. (Access date: 07.07.2015).

- 8. Caber, H. 2008. Ecologic Agricultural Turism. Ecologic/Organic Agriculture and Environment.
- 9. Demirel, D. and Demirel, D.Ş. 2012. Feed Production, Problems and Solutions in Turkey During EU Membership. International Animal Science Congress of Turkish and Relatives Communities. 11-13 September 2012. Isparta/Turkey. p:201-213.
- 10. Özen N., Sayan Y., Ak İ., Yurtman, Y., Polat, M. 2013. Animal Production-Environment Relations and Organic Animal Production (inTurkish). http://zmo.org. tr (Access date: 07.07.2015).
- 11. Öztürk, E. 2011. Situation of Organic Animal Production and Developing Potantial in Samsun Province. Http://www. Samsun sempozyumu. org.tr.( Access date: 07.07.2015).
- 12. Turan, A., Öztürk, E. 2009. Alternative Product to antibiotics in Organic Poultry Production. 1. Gap Organic Agriculture Congress, 17-20-Kasım 2009. P: 823-830.