

The Organic Product Consumer Profile of GAP-Şanlıurfa Province of Turkey

Fikret Kaya¹, Mustafa H. Aydogdu^{1*}, M. Emre Eren²

^{1*}(Agricultural Economics Department, Agricultural Faculty, Harran University, Turkey)

²(Technical Sciences Vocational School, Harran University, Turkey)

Abstract: The chemicals and agricultural pesticides are being increasingly used in food productions. The both human health and the environment were negatively affected from their excessive and uncontrolled usage. This situation has become a source of worry for consumers especially for those who have children, older people, pregnant women and health problems in their family. Accordingly, there is an increase of the consumption of organic products globally. In this regards, it is necessary to know expectations and the profile of the consumers, in order to meet the supply and demand. It is aimed to determine the profile of organic consumers who are living in Şanlıurfa province of Turkey by this research. The main source of this research comes from the organic product consumers who were selected by simple random sampling methods and interviewed face to face. According to the results, 73% of the consumers are between 30-60 years old, 67.5% of them married, 69.4% of them male, and 89.5% of them has higher education levels, average number of household is 4.2 and 46.3% of them working in private sectors. More than half of the participants know the organic products logo and they follow publicity mainly from internet by 41.4%. These results will be helpful for producers and policy makers about the planning of the organic products based on the consumers.

Keywords: Organic products, Consumers' profile, Consumption frequency, GAP-Şanlıurfa, Turkey

I. Introduction

The world population is rapidly increasing year by year. The world population was 3 billion in 1961 and reached to 7 billion in 2011. It is expected to reach 10 and 12 billion as of 2040 and 2050 accordingly based on the medium fertility estimate by the United Nations Department of Economic and Social Affairs, Population Division [1 to3]. In parallel with the increase in population together with rising levels of urbanization, the demand for food increases basically in two ways. The first is due to the growing population, the necessity for further production. And secondly, due to increasing urbanization, the amount of cultivated agricultural land is decreasing. As a result, in order to meet the growing demand, more production is required from per unit area. The total processed agricultural land in the world is 3.2 billion hectares. People who are facing with food shortages are over 800 million at present [4]. In order to meet the food needs of the growing world population, there is an increased use of technology in agriculture. The usage of the chemicals and pesticides have also been increases significantly with the increasing technology. Accordingly, the balance of nature and natural resources are deteriorating and chemical residues remains on natural resources and the agricultural products.

Food is essential for survive and the life that contains nutrients essential for health, but it may also include chemicals that can increase risk of diseases. These chemicals can include pesticides, herbicides, fertilizers, preservatives, artificial colors and flavors, and industrially produced fats and sweeteners. Not all of these substances may appear on the food product label [5]. Fruits and vegetables that contain pesticide residues can be a health risk for people of all ages, but especially for children, growth years of age, the elderly ones, pregnant women and for the patients. Research by scientists at the Harvard University School of Public Health published in "Pediatrics" in June 2010, discovered exposure to organophosphates may contribute to the prevalence of attention deficit hyperactivity disorder in children. On the other hand, industrially produced fats and sweeteners can increase risk of obesity, according to research by scientists at Louisiana State University in Baton Rouge published in "The American Journal of Clinical Nutrition" in April 2004. Exposure to a combination of the pesticide maneb and the herbicide paraquat increases risks of Parkinson's disease, especially in young people, according to research by scientists at the University of California in Berkeley published in the "American Journal of Epidemiology" in April 2009 [5]. There are also some basic studies that analyze the effects of chemicals on foods [6 to 8].

The usage of chemical fertilizers, growth hormones, antibiotics, genetic modified organisms and pesticides for productions result to disrupt the balance of nature that started to threat human health. This situation began to cause concern for the consumers, especially who have children, the elderly, the sick and pregnant women in the family. They have begun to turn to consumption of organic products for safety reasons. A number of studies have shown that starting with the consumption of organic products, the effect of many diseases decreased or eliminated. Such as, children who switch to organic produce no longer have significant

levels of organophosphates in their urine, according to research by scientists at Emory University published in "Environmental Health Perspectives" in April 2008. Organic farming can be simply defined as a production system that maintains the land, the ecosystem and the human health [9]. These concerns have led to more willingness to pay of the consumers for buying of the organic farming products as opposed to the conventional products, even pay more for the sake of health of their family members. There are many studies have shown that willingness to pay of users are increased significantly under certain conditions based on attitudes and expectations of individuals at Şanlıurfa, Turkey [10 to 20]. The consumers' willingness to pay would be more increased if it may be provided to ensure more of existing benefits [21 to 25].

Therefore, there is a growing need in the world for the development of agricultural production techniques which do not pollute air, water and soil, reduce the negative effect of erosion, soil salinity, and diseases and pests. Organic farming is an environmental-friendly production method, which aims to respond to this need [26]. Organic farming is becoming increasingly common. The 37% of world production of organic areas in Oceania, 24% in Europe, 20% in Latin America, 9% in Asia, 7% in North America and 3% is located in Africa [27]. There were 769,014 hectares of land in organic farming according to the report of farming sector in Turkey, as of 2013 [28, 29]. A very large portion of the organic products produced in Turkey are exported [30]. The consumption of organic agricultural products began to spread in Turkey. Organic agricultural products are more expensive than other type of products. Organic food marketing is rapidly growing for all over the world and in Turkey, too. Consumers have shown interest to organic foods due to being tasty, healthy, safety and also concerns about the natural resources.

Şanlıurfa is an important agricultural province located in the Southeastern Anatolia Project (GAP in Turkish) Region. Şanlıurfa has a population of 1.893 million people in 2015 and the second most crowded city of the GAP Region [31] and also ninth of Turkey in terms of population [32]. Şanlıurfa has 1.18 million ha of agricultural land and 42% of its arable land is irrigated [33] and 143,495 ha of vegetable gardens and fruit area together with 154,908 ha of fallow lands [34]. It is aimed to determine the organic consumers' profile of the Şanlıurfa province with this research.

II. Materials and Methods

The basic material of this study comes from the organic food consumers who are living in Şanlıurfa. The participants were selected by simple random sampling method and interviewed face to face by a questionnaire. Sample size is selected within 95% confidence limits with 5% of margin error by using Taro Yamane's formula [35]. Within this scope, 382 surveys were conducted. The obtained data are transferred to Excel, depending on the specific code plan. Then, the data have been analyzed and interpreted by using SPSS (Statistical Package for the Social Sciences), that is a software with a wide range of uses by researchers.

III. Results and Discussion

The information about age distribution of respondents were given at Table 1. The distribution of age range of the survey is consistent. Age is one important factor in explaining individuals food attitude and preferences [36] or food consumption [37, 38]. The younger ones mostly prefer fast foods due to time shortages, eating environment, being relatively cheaper, appearance and taste as opposed to the older ones who prefer safe food with nutritional values due to health considerations. The variation in individual food consumption behaviors based on many factors [39]. Most of the consumers' is to be expected from the group within the range of 30 to 60 years old. Mainly because of these groups represent the group of active employees and their rate is around 73% at the survey, as opposed to the youngest age group has 12% of being organic food consumers. The results are consistent with the expectations.

Table 2 provides information about the gender of the participants. Accordingly, the ratio of female participating in the survey was at the rate of 30.6% and 69.4% of male. Although the gender distribution of the survey is planned to be equal at the beginning but due to social and cultural structure of Şanlıurfa, the number of female participants took place lower than the male. Information about the marital status of the respondents are located in Table 3. The participation rates are lower than anticipated for married, widowed is higher than projected in the group. On the other hand, in general, due to being higher age for married and widowed participants, the rate of them more than the single ones, that is expected.

The distributions of number of households of the survey are presented in Table 4. The average number of households is calculated as 3.2 person and together with the participant it is 4.2. Number of households of the survey are consistent. Because of the consumers of organic products are comprised of middle to high income level and more educated individuals with lower number of households. The consumption spending will increase, in case of having crowded households that will bring additional burden on the family budget. In this sense, the respondents frequency distributions are consistent, as the expected. The educational status of the respondents are presented in Table 5. Accordingly, the frequency distributions are consistent, as expected. It is expected the existence of relationship between educational level and the consumption of organic products. When education

level increases, consumption amount and/or status of to be organic product consumers trends increase, too. Vice versa is true, too. The 89.5% of the consumers of organic products are graduated from higher education at surveyed area. In this sense respondents' frequency distributions are consistent with estimations and the projections.

Information regarding the professional status of the participants are presented in table 6. Both frequency distributions, as well as sectorial professional status are consistent. The regular employees with a purchasing power of income is higher than the others. The regular income has a positive effect on consumption amounts and expenditures. This group is expected to shift their consumption behavior in favor of organic products more than the others where food expenditures in budget of this group is relatively low, but numerically higher as compared to the other consumers. The opposite of this is also possible. It is also know that individuals with less or irregular income has higher share of consumption in their budget than the others that mainly consist of basic food consumption expenditure. This group will not tend to buy and consumption of organic foods unless it is required for health reasons.

The income distributions of the participants are given in Table 7. Frequency distributions are consistent with foreseen when the income of organic consumer and income level of Şanlıurfa taken into consideration. The maximum participation range has been between 1001TL to 4000 TL. These results are consistent with expectations. The consumers who have income of less than 1000 TL, they are thought to purchase basic organic products due to the necessities such as health care. Higher income groups give importance to consumption of organic products not only for the health considerations but also for the aesthetics such as care and beauty items. Individuals' attitude show variation in food choice based mostly on socio-economic or demographic variables such as age, gender, race, income, occupation, price and supply [40]. A study is showed that age, household and children number, education level and income are important indicator according to a cross cultural studies about consumer attitude and behavior towards organic food for Turkey and Germany [41]. Another study has been determined that the consumer profile who prefer organic products in Turkey is generally from a high level of education and income, middle-aged and older [42]. The distribution of residence status of the respondents are presented in Table 8. Şanlıurfa province center is composed of three districts. The participation rates by the districts is targeted to be evenly distribution. According to the survey results that is consistent.

Information regarding who does cuisine shopping by the participants are presented in Table 9. Before surveys were carried out, it was expected that the rate of mother/wife would be higher and the rate of father/husband would be lower. However, the proportions of women/wife were lower and the proportions of men/husband were higher than foreseen according to the results. It can be explained due to cultural and social structure of the province where existing of lack of enough economic freedom of women/wife were significantly lower. On the other hand, the option of doing shopping all together with the family rate is higher than the expected. Here, it is estimated that women have a role of choice, like and take, and the role of men was mainly for the payment. In other words, the role of women were still dominant here and that is consistent with expectations. The participants' information regarding the recognition of organic farming logo is given in Table 10. There is neither organic public bazaar nor shops selling only organic products in research area. In addition, organic farming logo has changed many times before. Therefore, the recognisability of organic farming logo is not at the expected level that is almost 59%. The participants expressed during the survey that it would be useful to do promotion about the logo by the local government. A known logo directly conveys the message to the consumer about the product and the producers. A study concluded that Turkish people have more problems in label recognition as opposed to German people [41].

The participants' information about when they first start to consume organic products is located at Table 11. In order to be regular consumer, it is expected to consume of organic products at least six months. Because the taste and healthiness of organic products in a short time is incomprehensible. In this regards, being organic products consumers of the participants are consistent. The 59% of the respondents are consumers of organic products more than three years. This result leads to the consistency and improves the reliability of the results of this research. The information regarding purchase reasons of organic products by the participants is given at Table 12. While, the participants who are located in the lower income group purchase mostly for patients and children, higher education level and higher income groups were purchasing for all the family members. These results are consistent with expectations before survey is conducted. The participants' information on how often they buy organic products is located at Table 13. Food consumption is a necessity and generally purchased when needed. While vegetables and fruits are purchased a few times a week and the legumes are purchased several times a month. Milk and milk products are purchased more often on daily basis. The rate of those "when I get if there is a discount" was low. This result is significant and shows that purchasing of organic consumption is not based on discount period at surveyed area.

The participants information on organic products where they usually buy is given at Table 14. The consumers prefer to shop by seeing, selecting and touching due to the social structure of the research area. Therefore, it is preferred buying directly from the producers or market and mall. Generally, it is not preferred

shopping on the internet for these reasons. In this sense, information about where the respondents buy organic products is meaningful and consistent. As it is expected, buying from the internet was low as 2.2%, as opposed to this one 30.6% of the participant's prefers buying directly from the producer and 30.1% from the markets and malls.

Information regarding on where the participants want and prefer for as a sale place of organic products is given at Table 15. The accessibility and confidence are important in consumers' behaviors. It is expected that the participants would prefer district bazaar and organic public bazaar due to the accessibility, diversity and visibility of the organic products. The trust factor requires the purchase of products from the known place or the place under public control mainly based on hygiene and health considerations. According to the results, the preference was 28.3% for local district bazaar/organic products bazaar as a selling place and 36.1% for the place where public control exist. The market and mall have preference rate of 24.3%. These results were to be expected as intuitional as well. On the other hand, the preference for organic products sales shop was 11.3% that is lower than the expected. It might be explained by not existing such shops in surveyed area. A study has been determined that consumers preferred to buy fresh vegetables, fruits and red meat from specialized traditional retailers where they are considered as a purchase location in Tokat-Turkey [43].

The distribution source of information about organic products where the participants were following is given at Table 16. According to the obtained results, internet has the highest rate with 41.4%. There seems to be a contradiction between Table 14 and Table 16. Despite the participants follow information on organic products from the internet but they do not prefer to do shopping from here. Depending on developing technologies, the internet is seen as the most important source of information by the participants because of easy and instant access. On the other hand, e-trade has not enough developed both in Turkey and in Şanlıurfa. There are some concerns about delivering on time, cheating and health matters. On the other hand, consumers generally prefers to purchase by seeing, touching, feeling and trying. Therefore, buying from the internet shopping and sales from internet are not considering safely. On the other hand, the least preferred place was newspapers and magazines to follow news about organic products by 10.2%. The average of 22% of the population reads regularly newspapers and 4% reads magazines in Turkey [44]. The number of books per person per year is 8 [45]. These rates are lower than Turkey in Şanlıurfa, too. A study showed that consumers mostly get information about the food security from radio-television programs in Tokat province of Turkey and purchasing is mostly affected from the TV commercials [43]. Thus, these results are meaningful and consistent.

According to answers given by the participants to the question of "Is there adequate publicity and promotion about the organic farming and products?" is located in Table 17. Accordingly, 77% of respondents said "No", this response rate was quite high and 5% of the respondents said "Yes" that was too low about sufficient publicity and information. 18% of respondents declared that it was "partially". This result is due to the lack of widespread consumers of organic products in Şanlıurfa. It is obvious that there is a need and also lack of enough information about organic products at present. The results are meaningful and consistent.

The number of participants who believe that there is lack of adequate publicity and information about organic farming and products is 293 person and 76.7%. In order to explore the reason of this belief a question is asked with multiple choices. Participants' answer for the question of "Why there are not sufficient publicity and information about organic products?" is given at Table 18. Almost half of the participants believe that there is lack of enough attention given to human health and the environment by 44.2%. Human health and the environment are important factors for individuals for better living standards. If more attention will be given these subjects by the other stakeholders such as conventional producers and public policy makers and the situation is expected to increase in promotion of organic products and naturally consumption amount, too.

IV. Tables

Table 1. Age profile of respondents who involved in the survey

Age groups (between years old)	Frequency (n)	Percentage (%)
18-29 years old	46	12,0
30-39 years old	96	25,2
40-49 years old	89	23,3
50-59 years old	92	24,1
>60 years old	59	15,4
Total	382	100,0

Table 2. Gender Information of the respondents who attended the survey

Gender	Frequency (n)	Percentage (%)
Female	117	30,6
Male	265	69,4
Total	382	100,0

Table 3. The marital status of the respondents

Marital Status	Frequency (n)	Percentage (%)
Single	30	7,9
Married	258	67,5
Widowed	94	24,6
Total	382	100,0

Table 4. The number of households of the respondents

Number of Households	Frequency (n)	Percentage(%)
2	101	26,4
3	147	38,5
4	109	28,6
5	15	3,9
6	10	2,6
Total	382	100,0

Table 5. Education status of the participants

Education status	Frequency (n)	Percentage (%)
Primary education	6	1,6
High school	34	8,9
University	260	68,1
Master/Ph. D.	82	21,4
Total	382	100,0

Table 6. Professional/employee status of the participants

Employee status	Frequency (n)	Percentage (%)
Unemployed/Retired	45	11,8
Public sector employee	123	32,2
Private sector employee	177	46,3
Self employed	37	9,7
Total	382	100,0

Table 7. Income level distributions of the participants

Income level (TL/month)	Frequency (n)	Percentage (%)
1000 and below	26	6,8
Between 1001-2500	144	37,7
Between 2501-4000	162	42,4
4001 and higher	50	13,1
Total	382	100,0

Table 8. Residence status of the participants

Residence status	Frequency (n)	Percentage (%)
Karaköprü	117	30,7
Haliliye	140	36,6
Eyyübiye	125	32,7
Total	382	100,0

Table 9. The distribution of who does cuisine shopping in the family

Who does cuisine shopping in the family	Frequency (n)	Percentage (%)
Mother/Wife	108	28,3
Father/Husband	77	20,1
Family all together	197	51,6
Total	382	100,0

Table 10. The recognition of organic farming logo by the participants

The recognition of the organic farming logo	Frequency (n)	Percentage(%)
Yes	225	58,9
No	157	41,1
Total	382	100,0

Table 11. When the participant first start to consume organic products

Since when start to consumption of organic products	Frequency	Percentage
Since last 6 months	84	22,0
Since last 6-12 months	35	9,2
Since last 1-2 years	38	9,9
Since last 3 years	225	58,9
Total	382	100,0

Table 12. Buying reasons of the organic products by the participants

Buying reasons of organic products for whom	Frequency (n)	Percentage (%)
For children	50	13,0
For elderly people	19	5,0
For patients	16	4,3
For all family members	297	77,7
Total	382	100,0

Table 13. Buying frequencies of organic products by the participants

Buying frequencies of organic products	Frequency (n)	Percentage (%)
A few times in a week	91	23,8
A few times in a month	105	27,5
A few times in a year	29	7,6
When there is a need	133	34,8
When there is a discount	24	6,3
Total	382	100,0

Table 14. The respondents' preferences of shopping place for the organic products

The shopping/buying place of the organic products	Frequency (n)	Percentage (%)
Market/Mall	115	30,1
Organic Sales Shop	62	16,2
District or Organic Products Bazaar	80	20,9
From Internet	8	2,2
From producer	117	30,6
Total	382	100,0

Table 15. The place where the participants want to buy organic products

The place where the participant wants to buy	Frequency (n)	Percentage (%)
Market/Mall	93	24,3
Organic Product Sales Shop	43	11,3
District or Organic Products Bazaar	108	28,3
The place under Public Control	138	36,1
Total	382	100,0

Table 16. Information source of organic products where followed by the participants

Information source of organic products	Frequency (n)	Percentage (%)
Internet	158	41,4
TV/Radio Programs	77	20,2
Newspaper/Journal	39	10,2
Doctor/Expert	108	28,2
Total	382	100,0

Table 17. Distribution of response of the participants about adequate publicity and promotion

Is there adequate publicity and promotion?	Frequency (n)	Percentage (%)
Yes	18	4,7
No	293	76,7
Partially	71	18,6
Total	382	100,0

Table 18. The responds of the participants about not having sufficient publicity

Why there are not adequate publicity and promotion?	Frequency (n)	Percentage (%)
I do not know	27	7,1
Topic has not enough overrated	41	10,7
Not given enough importance to human health and the environment	169	44,2
Producers do not have enough care about it	56	14,7
Total	293	76,7

V. Conclusion

Today, agricultural production has shifted to intensive production techniques by technological developments from conventional agriculture in order to meet the food needs of a growing population. This process has been used more synthetic chemicals and pesticides. Excessive and uncontrolled use of chemicals results to the formation of residues on agricultural products, these negatively affect animal and human health, the environment and the natural resources. This situation is becoming worrying situation for consumers. As a natural consequence, the consumers have started to search for safer food and safer consumption. That result to increase on the production and consumption of organic food in Turkey and the world, as well as the importance and the usage amount has increased. In other words, it began to emerge a growing market. In this sense, it is a

must to know profile of organic product consumers in terms of their socio-economic structure for better supply and demand.

According to the survey's result, the organic product consumers are mainly from middle and high income groups with middle-upper aged. Their educational level is higher than the others. The consumers more tend to be a organic product consumer, when education and income level increases. The opposite of this situation is true, too. They follow information mostly from the internet but prefer to purchase from place under public control, district or organic product bazaar, market and malls. There is an increasing need of knowledge on control and supervision, promotion of publicity and information requested by the consumers for the expansion usage of organic products.

Acknowledgements

This study was supported within the scope of a master's thesis under the supervision of the corresponding author by Harran University of HUBAK with a project number 16057.

References

- [1] Anonymous, World populations. 2016a. [http://web.archive.org/web/20151111023001/ http://www.worldometers.info/world-population/](http://web.archive.org/web/20151111023001/http://www.worldometers.info/world-population/) (Accessed at: August, 24, 2016).
- [2] Anonymous, Wikipedia, World populations. 2016b. https://tr.wikipedia.org/wiki/Dunya_nufusu (Accessed at: August, 24, 2016).
- [3] Anonymous, Dünya nüfusu. 2016c. <http://www.sabah.com.tr/gundem/2015/10/02/dunya-nufusunun-yarisi-5-ulkede-yasiyor#> (Accessed at: August, 24, 2016). (In Turkish).
- [4] D. Demirag, Küresel İsyana Dogru mu? *Birikim Dergisi*, 229, 2008. <http://www.birikimdergisi.com/birikim-yazi/6125/kuresel-isyana-dogru-mu#.V71v4yiLTIU> (Accessed at: August, 24, 2016). (In Turkish).
- [5] J. Traister, Bad Effects of Chemicals in Our Food, 2016. <http://www.livestrong.com/article/497730-bad-effects-of-chemicals-in-our-food/> (Accessed at: August, 24, 2016).
- [6] D.Pearson, *The chemical analysis of foods*. No. Ed. 7. (London: Longman Group Ltd., 1976). UK.
- [7] H. Egan, H. E. Cox, and D. Pearson. Pearson's chemical analysis of foods (1981). <http://agris.fao.org/agris-search/search.do?recordID=US201300343383> (Accessed at: August, 30, 2016).
- [8] K. Sawyer, and R. Sawyer. *Pearson's composition and analysis of foods*. No. Ed. 9. (London: Longman Group Ltd., 1991).UK
- [9] K.Demiryürek, Organik Tarım Kavramı ve Organik Tarımın Dünya ve Türkiye'deki Durumu *GOÜ, Ziraat Fakültesi Dergisi*, 28(1), 2011, 28-29.
- [10] M.H. Aydogdu, B. Karli, K. Yenigün, A.R. Mancı and M. Aydogdu, Pricing trends in agricultural irrigation; attitudes and perceptions of farmers to pricing; GAP Harran Plain irrigations, Şanlıurfa. *The Journal of Academic Social Science Studies*, 29, 2014, 165-188. <http://dx.doi.org/10.9761/JASSS2529>
- [11] M.H. Aydogdu, A.R. Mancı and M. Aydogdu, The Overviews And Perceptions Of Faculty Of Agriculture Students Of Harran University To Agricultural Policies Of Turkey. *Turkish Studies*, 9(11), 2014, 63-77. Doi Number: <http://dx.doi.org/10.7827/TurkishStudies.7348>
- [12] M.H. Aydogdu, Evaluation of the managers' views to water user associations in GAP-Harran Plain, Turkey. *Basic Research Journal of Agricultural Science and Review*. 4(2), 2015, 064-070. ISSN 2315-6880
- [13] M.H. Aydogdu and M. Aydogdu, Attitudes of the Water Authority to Water User Associations and the Management; GAP Region, Sanliurfa-Turkey. *International Journal of Current Science*, 15, 2015, 43-48. ISSN 2250-1770
- [14] M.H. Aydogdu, B. Karli, K. Yenigun and M. Aydogdu, The farmers' views and expectations to the Water User Associations; GAP-Harran plain sampling, Turkey. *Global Advanced Research Journal of Agricultural Science* 4(1), 2015, 033-041. ISSN: 2315-5094
- [15] M.H. Aydogdu, B. Karli and M. Aydogdu, The Attitudes Of Stakeholders To Water User Associations And Water Management: GAPHarran Plain Sampling. *The Journal of Academic Social Science, ASOS Journal*. 3(14), 2015, 93-103. Doi Number: <http://dx.doi.org/10.16992/ASOS.710>
- [16] M.H. Aydogdu, B. Karli and M. Aydogdu, Evaluation of attitude of stakeholders for irrigation water management: A case study of Harran Plain, Turkey. *Journal of Environmental & Agricultural Sciences* 4, 2015, 42-47.
- [17] M. H. Aydogdu, K. Yenigun and M. Aydogdu, Factors affecting farmers' satisfaction from water user associations in the Harran Plain-GAP Region, Turkey. *Journal of Agricultural Science and Tchonology*. 17(Supplementary issue), 2015, 1669-1684.
- [18] M.H. Aydogdu, A.F. Atasoy, M.E. Eren, and N. Mutlu, The Consumers' Behaviors Towards To a Regional Agricultural Product in Turkey. *IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS)*. 9(5), 2016, 25-30. DOI: 10.9790/2380-0905022530
- [19] M.H. Aydogdu, A.F. Atasoy, M.E. Eren, N. Mutlu and A. Korkmaz, The Evaluation of the Producers' View towards a Local Agricultural Food Product for Marketing; Isot Pepper of Sanliurfa-GAP, Turkey. *IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)* 10(9), 2016, 59-64. DOI: 10.9790/2402-1009015964
- [20] Aydogdu, M.H. and Yenigün, K. 2016. Farmers' Risk Perception towards Climate Change: A Case of the GAP-Şanlıurfa Region, Turkey *Sustainability*, 8(8), 2016, 806; doi:10.3390/su8080806
- [21] M.H. Aydogdu, B. Karli, K. Yenigün and M. Aydogdu, M. Evaluation of Farmers' Willingness to Pay for Water under Shortages: a case study of Harran Plain, Turkey. *Journal of Environmental & Agricultural Sciences* 7, 2016, 23-28.
- [22] M.H. Aydogdu and K. Yenigun, Willingness To Pay For Sustainable Water Usage In Harran Plain-GAP Region, Turkey. *Applied Ecology And Environmental Research* 14(3), 2016, 147-160. DOI:http://dx.doi.org/10.15666/aeer/1403_147160
- [23] M.H. Aydogdu, Willingness To Pay For Sustainable Water Usage In Harran Plain-Gap Region, Turkey. *Applied Ecology And Environmental Research*, 14(1), 2016, 349-365. DOI:http://dx.doi.org/10.15666/aeer/1401_349365
- [24] M.H. Aydogdu, B. Karli and M. Aydogdu, The Overviews Of Water User Association Presidents To Irrigation Water Pricing And Management: The GAP-Harran Plain Irrigations Sampling. *International Journal of Social Science, JASSS*, 31, 2015, 167-177. Doi:<http://dx.doi.org/10.9761/JASSS2694>.
- [25] M.H. Aydogdu, A.R. Mancı and M. Aydogdu, M. The Changes In Agricultural Water Management; Water User Associations, Pricing And Privatization Process. *Electronic Journal of Social Sciences*, 14(52), 2015, 146-160. DOI: <http://dx.doi.org/10.17755/esosder.82927>.
- [26] Anonymous, About Organic Farming, <http://www.tarim.gov.tr/Konular/Organic-Farming/About-Organic-Farming> (Accessed at: August, 22, 2016).

- [27] A, Altindisli and U, Aksoy, Türkiye Ziraat Mühendisliği VII. Teknik Kongresi, 2010, 214-225 http://www.zmo.org.tr/resimler/ekler/b90614883e606d5_ek.pdf (Accessed at: May,05, 2015).
- [28] 28- Anonymous, Türkiye'de Organik Tarım, <http://www.orguder.org.tr/turkiyede.html> (Accessed at: April,08, 2015).
- [29] 29- Gıda, Tarım ve Hayvancılık Bakanlığı Bitkisel Üretim Genel Müdürlüğü Türkiye Organik Tarım Stratejik Plan (2012-2016) pp. 6-10 [http://www.izmiriplanliyorum.org/static/upload/file/turkiye_organik_tarim_stratejik_plani_\(2012-2016\).pdf](http://www.izmiriplanliyorum.org/static/upload/file/turkiye_organik_tarim_stratejik_plani_(2012-2016).pdf) (Accessed at: April,01, 2015).
- [30] H. Kizilaslan and A. Olgun, Türkiye'de Organik Tarım ve Organik Tarıma Verilen Desteklemeler sayfa GOÜ, *Ziraat Fakültesi Dergisi*, 29 (1), 2012, 7
- [31] GAP. Şanlıurfa profile. p. 2. <http://www.gap.gov.tr/upload/dosyalar/pdf/icerik/SANLIURFA.pdf> (Accessed at: August, 25, 2016).
- [32] Anonymous, Türkiye'nin en kalabalık şehirleri <http://ennler.net/turkiyenin-en-kalabalik-sehirleri/> (Accessed at: August, 25, 2016).
- [33] Karacadağ Kalkınma Ajansı. Agricultural Area Distribution of Şanlıurfa Province (ha). Available online: <http://www.investsanliurfa.com/sectorler-sayfaIn.asp?SayfaInId=14> (Accessed at: June, 20, 2016).
- [34] GAP. Şanlıurfa profile. p. 1. <http://www.gap.gov.tr/upload/dosyalar/pdf/icerik/SANLIURFA.pdf> (Accessed at: August, 25, 2016).
- [35] T. Yamane, Basic Sampling Methods. Literatur Publication, Istanbul, 2001.
- [36] L. Rappoport, G. Peters, R. Downey, T. McCann and L. Huff-Corzine, Gender and age differences in food cognition, *Appetite*, 20, 1993, 33–52
- [37] M.L. Axelson The impact of culture on food-related behavior. *Annual Review of Nutrition*, 6, 1986, 345–363
- [38] C.T. Nu, P. MacLeod and J. Barthelemy Effects of age and gender on adolescents' food habits and preferences, *Food Quality and Preference*, 7(3–4), 1996, 251–262.
- [39] S.O.Olsen, Understanding the relationship between age and seafood consumption: the mediating role of attitude, health involvement and convenience *Food Quality and Preference*, 14 (3), 2003, 199–209. [http://dx.doi.org/10.1016/S0950-3293\(02\)00055-1](http://dx.doi.org/10.1016/S0950-3293(02)00055-1)
- [40] C. Ritson and R. Hutchins, Food choice and the demand for food. In D. W. Marshall (Ed.), *Food choice and the consumer* (pp. 152–181), 1995, London, UK: Blackie Academic & Professional.
- [41] N. Mutlu, Consumer attitude and behavior towards organic food: Cross-cultural study of Turkey and Germany. Institute for Agricultural Policy and Markets, Universität Hohenheim, Master Thesis, 2007.
- [42] S.T. Gurses, Organik Ürünlerin Tüketim Eğilimleri Ve Tüketici Profiline Belirlenmesi: Sakarya İli Örneği Uludağ Üniversitesi Fen Bilimleri Enstitüsü Yüksek Lisans Tez, 2014, Bursa
- [43] E. Onurlubas, Measurement Of Consumers Knowledge Level On Food Safety: A Case Study In Tokat Ph. D. Thesis, Gaziosmanpaşa University, Graduate School of Natural and Applied Sciences, 2015.
- [44] Anonymous, <https://www.burdurgazetesi.com.tr/haberler/maku-haberleri/1452-turkiye-ve-dunyada-kitap-okuma-oranlari-arastirma.html>. (Accessed at: August, 25, 2016).
- [45] Anonymous, <http://www.sozcu.com.tr/2016/gundem/turkiyede-kisi-basina-8-kitap-dusuyor-1034780>, (Accessed at: August, 25, 2016).