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THE CONSUMPTION PATTERNS OF THE ORGANIC PRODUCT "SZOMOR"

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ABSTRACT: Nowadays the market penetration of organic food is growing. We can buy these products everywhere: in shops, drugstores, supermarkets. Many of them are import products and there are a lot of famous Hungarian items too. In our work we introduce a big farm called "Szomor", which can be found in Kiskunság National Park. The owner of this farm deals with livestock of native animals. The meat is produced in their own meat factory where premium quality products are made. Within the scope of our research, a survey was conducted to determine the consumption habits and knowledge of organic products. The results clearly show that most of the people are familiar with the concept of organic farming, but the awareness of these products and the organic meat consumption of average person are low. We suggest deliberate marketing strategy to increase the consumption.

Keywords: organic farming, organic food, grey cattle

1. INTRODUCTION

Farm "Szomor" was established by Dezső Szomor, who is a qualified horticultural engineer degree, because he loved animals. He bought the animals, dying out already, directly from the slaughterhouse. In 1993, he won the tenders for leasing territories in Kiskunság National Park in secondary privatisation and he is still farming in these lands. In the last twenty-three years only indigenous breeds were kept on these territories. The highest number of animals held here are the Hungarian grey cattle, about 2,500-2,700 specimen including the brood. Since it was not possible to sell the live cattle at a reasonable price, they have decided to have a go at processing meat [1]. The following objectives were formulated in our study:

- Get to know the formation and development of organic farming in our country,
- Understand the consumer behaviour related to organic products in particular the Hungarian grey cattle products of the farm "Szomori Gazdaság".

This article gives a short description of the research results.

2. LITERATURE REVIEW

2.1. The definition of organic farming

There are several interpretations of organic farming. Reference [2] highlights the production without synthetic materials and emphasizes the use of biological crop protection technology. The definition of IFOAM interprets organic farming as a production system capable to produce healthy foods, which protects and preserves soil fertility and takes into account the natural ecological processes [3]. In the definition of reference [4], compliance with the law and the system of premises have a central role in the entire process from the production, throughout the processing, to trade. The author draws attention to the exclusion of synthetic materials and genetically modified organisms and to the use of environmentally friendly technologies.

2.2. The development and the situation of organic farming in Hungary

Europe has already developed various trends of organic farming in the 1920-30s. Reference [2] mentions six trends, which are the following: biodynamic, sustainable farming, Masanobu Fukuoka theory, permaculture, organic-biological and soil association.



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The beginning of organic farming can be dated to the 1980s. The "Biokultúra" movement, which later functioned as an association, was launched in 1983 and by joining professional circles, independent regional associations were formed. Since 2005 they operate under the name of "Magyar Biokultúra Szövetség" (Hungarian Bioculture Association). Their goal is the dissemination of organic farming, the increase of the number of processing units and the promotion of their manufactured products among customers [5]. Their tasks are:

- **■** to represent Hungary in domestic and international legislation,
- inspection and certification by the Biokontroll Hungária Nonprofit Ltd. organization,
- **■** to operate the Budapest organic market,
- **■** to organize various events and to edit the "Biokultúra" magazine [6].

2.3. Organic livestock requirements

Organic livestock farming has strict regulations and requirements, which have to be compulsorily kept by the farmer.

a. Regulations controlling the origin of animals

The aim of the regulations is to keep the animals in an organic farm throughout their life, from birth to slaughter. Animals can be involved from conventional or from other organic farms. In case of conventional farms, strict rules apply [7].

b. Regulations of animal placement and housing technology

Animals may be kept free-range without a building, or in a barn, a livestock building. The housing technology must be designed to take into account the growth, the behaviour and the age-appropriate physiological needs of the animal. The appropriate natural light, air circulation and temperature necessary for the animal must be provided in the building.

c. Treatment

The animals should be treated so that their suffering throughout their lives is minimal, even during their slaughtering [8].

d. Animal nutrition

The organic cattle, sheep, goat and horse keeping should be based primarily on grazing. If possible, private forage base and self-sufficiency should be pursued. Herbivores must not be feed with forage from conventional farms and the use of different kinds of yield boosters, forage supplements and synthetic flavouring agents is prohibited.

e. Animal health

In the area of diseases, the biggest emphasis should be on prevention. Choosing the right breed, the adequate housing system and the animal feeding serves this purpose as well. If treatment is still necessary, the priority must be given to homeopathy and herbal medicine. A veterinary diary should be kept about the treatments [7].

2.4. The Hungarian grey cattle

The Hungarian grey cattle was bred over the centuries by crossbreeding the cattle living in the Carpathian Basin, the aurochs and the domestic cattle living with the Hungarians. It is an undemanding breed and adapts well to the weather. It lives outdoors throughout the year and gives birth to the calf under the open sky as well. Its special feature is the long horn [9]. Our ancestors used the grey cattle as draft animal, but with the development of agriculture the demand for workstock has decreased, so the role of the animal has changed. The animal keepers were seeking high yield with a small number of animals and the demands were only met by diary breeds suitable for intensive farming [10]. In the early 19th century, as a result of braking up pastures, the number of the grey cattle decreased as well because their basic living conditions were not provided. After the dry year in 1863, their number was substantially reduced, they died en-masse on the pastures. In the 1960s, three state farms were keeping greys and there were only three bulls and two-hundred cows. From the 1970s, their number shows a growing tendency, in which the national parks have a major role, as most of today's grey cattle population live there. Today the breeding is managed by the Hungarian Grey Cattle Breeders Association (Magyar Szürke Szarvasmarhát Tenyésztők Egyesülete, MSZTE) [11].

3. MATERIAL AND METHODS

Quantitative and qualitative methods were used in our research as in [12]. A structured interview was conducted with Gábor Miklay, the production manager of farm "Szomor" (the description in the introduction originate from the interview) and a survey was carried out among the customers. Firstly, their knowledge was asked about organic farming and then they were inquired about their

consumption of organic products and their shopping habits. It was also assessed how well farm "Szomor" and their products are known and how often do people buy the farm's products.

4. RESULTS AND DISCUSSION

According to EU figures, the average amount of money spent on organic food is 43.8 Euros per capita (2015). Denmark ranks first with 153 Euros/capita, then Luxembourg, Austria, Sweden and Germany follows [13]. In Hungary, a representative survey with a thousand persons revealed that the main barriers of consuming organic products are primarily the scepticism towards the products and the high price [14].

We would like to disclose the results of our quantitative research based on some important questions and the responses to them. A considerable part of the 120 respondents were between the age of 25 and 46, live in Bács-Kiskun county and has secondary or higher level of education.

Three fourth of the respondents said that they were familiar with the concept of organic farming. Most of them emphasized freedom from chemicals in their answers, then healthy foods, naturalness

environmentally friendly farming methods were next in the list. Some also addressed the question of sustainability too. Hearing about organic farming reminded persons two expensive products and for one person, biodiversity came mind. Only thirty-five people named a specific farm; most mentioned the farm of Dezső Szomor. Their opinions about organic farming is reflected in Figure 1.

77.5 per cent of the respondents believe that this kind of farms are

important and it is necessary to have farms, which care about the environment. 13.3 per cent have chosen that "it is a lie" and, according to them, production is not possible without chemicals, while 5.9 per cent thinks it unnecessary and 3.3 per cent chose the options "other".

Participants were asked about their consumption of products from organic farms (Figure 2). Those, who consume these products, typically do that only a few times annually.

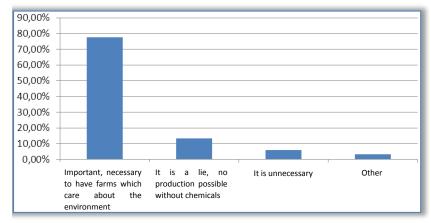
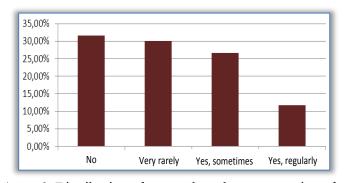


Figure 1. Distribution of the respondents by their opinions on organic farms (n=120)



igure 2. Distribution of respondents by consumption of organic products (n=120)

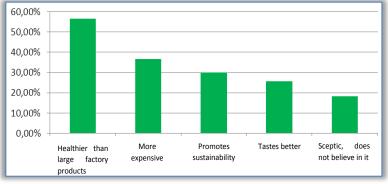


Figure 3. Distribution of respondents by their opinions on organic foods (n=120)

We were also interested in the opinion of the survey participants considering the organic products. The distribution of their answers are shown in Figure 3. A large number (56.7%) believes that these products are healthier than the ones of large factories, however many people (36.7%) also indicated that they more expensive. Unfortunately, 18.3 per cent feels that he or she does not believe in these products.

Afterward, the number of the sample decreased because only the consumers of organic products were asked (n=81).

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5. CONCLUSIONS

Based on the responses to the questions, we have found out that participants of the research purchase the eco-foods mainly from the manufacturer, farmer; these are primarily vegetables, fruits and meat. However, the food manufactured from grey cattle were mainly in the category of "not consumed" and only nearly a fourth of the surveyed stated that he or she has already tasted it before, and 22 per cent admitted that rarely, but eats it.

37.5 per cent of all the surveyed (n=120) are familiar with farm "Szomor", but many of them rarely or never eat products originating from there. We have also learned that practically there is only one person from the participants who regularly buys salamis produced form grey cattle and 17 persons had already tasted it. It is

Table 1: SWOT analysis of organic farming

Strengths	Weaknesses
Excellent natural	
	Unequal production
endowments	structure
Utilization of natural	Low level of processing
reserves	High risks of
Excellent genetic basis	production
Natural farming methods	High costs of
Healthy food	monitoring
Preservation of biodiversity	Eco products are more
GMO exemption	expensive
Opportunities	Threats
Opportunities	
Opportunities Increase the level of	Threats
Opportunities Increase the level of processing	Threats Market anomalies
Opportunities Increase the level of processing Development of marketing	Threats Market anomalies Legal background
Opportunities Increase the level of processing Development of marketing strategy	Threats Market anomalies Legal background becoming more strict
Opportunities Increase the level of processing Development of marketing strategy Better exploitation of tender	Threats Market anomalies Legal background becoming more strict Weather conditions
Opportunities Increase the level of processing Development of marketing strategy Better exploitation of tender opportunities	Threats Market anomalies Legal background becoming more strict Weather conditions Increase of monitoring

worth mentioning that many tried the products primarily because of their friends' recommendation. It became clear that people do not purchase repeatedly or more often because of the price. The conclusions of our research are summarized in the SWOT analysis (Table 1).

Note: This paper is based on the paper presented at International Conference on Science and Technique based on Applied and Fundamental Research – ICoSTAF 2016, organized by University of Szeged, Faculty of Engineering, in Szeged, HUNGARY, 2 June 2016

References

- G. Miklay, oral communication, 2015
- L. Radics, Ökológiai gazdálkodás [Organic farming], Dinasztia Kiadó, Budapest, 2001 [2.]
- Prinzipien des Öko-Landbaus, International Federation of Organic Agriculture Movements (IFOAM [3.] Organic International), http://www.ifoam.bio/sites/default/files/poa_german_web.pdf
- G. Solti, Magyarország ökogazdálkodása az Európai Unióba történő csatlakozásunkkor [Hungary's [4.]organic farming during accession to the EU], Biokultúra Egyesület, Budapest, 2004
- [5.]Á. Panyor, A különleges élelmiszerek piacnövelési lehetőségei megkérdezések tükrében [Increasing the market opportunities of special food in the light of surveys], PhD thesis, Corvinus University of Budapest, Interdisciplinary (Landscape Architecture and Decision Support Systems) Doctoral School, Budapest, 2007, http://phd.lib.uni~corvinus.hu/161/1/panyor_agota.pdf
- Hungarian Bioculture Association, http://www.biokultura.org/hu/gyakran-ismetelt-kerdesek
- [7.]Sz. Siku, S. Zámbó, A. Kiss, Az ökológiai állattartás szabályai [Rules for organic livestock], Biokultúra, 24 (3) (2013), pp. 16~20.
- K. Kassai, A. Kovács, F. Pajor, P. Póti, A. Prágai, E. Prokaj, Gy. Turóczi, I. Tirczka, J. Tőzsér, Ökológiai [8.] gazdálkodás alapjai 2. [Basics of organic farming 2], Szent István University, Gödöllő, 2013 T. Bellon, M. Kútvölgyi, A magyar szürkemarha [The Hungarian grey cattle], Timp Kiadó, Budapest,
- [9.]
- [10.] B. Bernáth, I. Holló, A magyar szürke szarvasmarha szerepe a táj-és környezetvédelemben [The role of the Hungarian grey cattle in landscape and environment protection], A hús, 20 (3-4) (2010), pp. 103-106.
- [11.] É. Csomós, Szürkemarha: Az Alföld világszerte ismert jellegzetessége [Grey cattle: the world famous Agroinform, characteristics of the Great Hungarian Plain], http://www.agroinform.com/allattenyesztes/szurkemarha-az-alfold-vilagszerte-ismertjellegzetessege-13098
- [12.] B. Zsótér, R. Kaliczka, Examinations carried out in relation to the shopping habits and satisfaction of customers in the shops of Coop Szeged Ltd. Review of Faculty of Engineering: Analecta Technica Szegedinensia, 8 (1) (2014), pp. 38-41.
- [13.] Organic Food at a glance, Infographics May 2015, European Parliament Research Service, http://www.europarl.europa.eu/RegData/etudes/ATAG/2015/554199/EPRS_ATA(2015)554199_ EN.pdf
- [14.] V. Szente (2014): Szeretjük a bioélelmiszereket, de sok a korlát [We love organic food, but there are many barriers], Biokultúra, 25 (4) (2014), pp. 26-27.