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## Conference Paper

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# Market Research for Organic Products in Everyday Use in Koprivnica-Križevci County

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## Abstract

Over the past two decades, organic food production system was transformed from a loosely coordinated network of local producers and consumers, into a globalized system that defines formally regulated trade that links socially and spatially distant places of production and consumption. Customers today are more informed on food production, genetic manipulation and the impact of food on health, through a variety of information channels (fairs, events marketing, Internet, etc.). Therefore, today it is not enough to meet the basic needs of hedonistic consumer, because it cannot be enough to motivate the customer. The product has to arouse the customer added values that are important for his choice. Organically grown food, among other things, offers the following added value: better taste, food safety for the customer and his family, the use of packaging and production methods that have less impact on the environment. Today, organically grown food is increasingly prevalent in supermarkets, as well as in specialized stores, whose number is growing on the Croatian market. It is encouraging that organic farmers began procedures for obtaining eco sign. More and more people are turning to so-called "healthy" lifestyle. This work is based on research habits of buying organic products among the consumers in the area of Koprivnica – Križevci County on a sample of 165 respondents. The aim of the research was to determine how the participants at all are familiar with the concept of organic farming, lifestyle and diet, and consuming the same. Also, we will provide the environmental, economic and socio-cultural well-being of organic farming, that today, because of the immense depth and the devastation of the environment should be more relevant than ever.

**Keywords:** certified organic product, conventional products, organic farming, Koprivnica-Križevci County

**JEL classification:** D12, Q57

## Introduction

"Organic" movement draws its beginnings from the mid-20th century. We can still say that the "pioneers of the organic movement" for long have been people in the minority, and only a handful of enthusiasts who believed in a "different" could survive and expand its horizons to the future.

Although we can safely say that our organically grown products may not be completely freed from protection technology (insecticides, pesticides, fungicides, etc) since the world itself is too polluted, we can narrow it down or choose not to use it in our own production. The mortality of poisoning with pesticides is not great, but

we cannot know with certainty what and in what quantity we put in your body, if we use conventional products.

By growing our own vegetables and fruit, we enable our descendants to have a fresher and tastier food, rich in vitamins and minerals. Eating food grown with fertilizers and pesticides we are losing natural resistance, because the food is not of vital energy, and the nutritional values are reduced. Plants grown without chemical fertilizers and pesticides contain vital energy which is then transmitted through the food on our body and supports our immune system. This quality cannot be determined by chemical analysis, but is felt in our body.

## What is organic farming?

Organic farming is a farming system that strives to ethically acceptable, ecologically clean, socially equitable and economically profitable agricultural production (Batelja Lodeta et al., 2011). One of the major limiting factors for the development of ecological agriculture is underdeveloped market infrastructure, inadequate organization of the market of organic products and the lack of appropriate knowledge and skills. The development potential are young educated people interested in organic production as well as a growing number of conscious consumers of organic products (John, 2010).

The primary purpose of organic farming is protection of human health and life, the protection of nature and environment and consumer protection. As such it is defined by law, international rules, and goes through the procedure and tests before they receive such a designation.

Organic production:

- makes a sustainable natural resource management (preserves soil fertility , flora and fauna, water and atmosphere)
- prohibits the application of chemical agrocidis, artificial fertilizers and other agrochemicals
- restores balance in nature and thus preserves biodiversity
- encourages the development of rural areas and the development of small family farms
- contributes to the development of eco-tourism and eco-villages and connects agricultural, touristic and handicraft activities

The growth of the market for organic food as well as the increase of ecological (organic) farming, indicates the rapid development of organic farming in Europe and the world, which not only provide a valuable contribution to environmental protection but ensures the development of rural communities (Willer and Kilcher, 2010).

## What is eco-product?

Eco product is a product with 95% or more organic ingredients. The 5% is to be left in case of pollution from the atmosphere, such as acid rain or pesticides issued by the wind from the neighboring farms and such.

Ecological, biological and organic products are really synonymous. The first name is official in Croatia, the other is often used in Germany and the third is international title. The actual eco-labeled product is "a sign of ecological products".

The most common European stamp, which is not national but global, is the so-called "flower" which can be found on a wide range of products. There are many international certificates: BDIH certified natural cosmetics, Demeter certification as a mark of biodynamic farming and organic farming. National: Croatian eco product

and Friends of the Environment in Croatia, American USDA certificate, AB French certificate, Der Blaue Engel in Germany and Nordic Swan in Denmark, Finland, Iceland, Norway and Sweden, AIAB and ICEA in Italy.

## Organic production in the EU

The European Union has regulated organic agriculture legally by adopting regulations on organic farming and food production in 1991 (EU Regulation no. 2092/91). In the world today, ecological agricultural areas spread over 43.1 million hectares, which handles two million organic producers. The market value of the world's organic agricultural production amounts to 54 billion Euros (Eco-Forum, 2015).

According to statistics of the European Union, the sector of organic agriculture in the last decade has been steadily rising, with about 500,000 new hectares annually. Statistics also show that farmers who decide to organic farming generally are younger compared to conventional farmers.<sup>1</sup> In 2010, 61.3% of organic producers were younger than 55 years. Also, most of the land and the property with organic farming, as much as 83%, are in the 15 older Member States of the European Union, such as France, Italy, Germany, Belgium and the United Kingdom. However, the 12 countries which joined the EU after 2004, from the moment of accession, showed an increase of organic production. Between 2003 and 2010 the number of organic farms increased ten times and organic production increased by 13% per year. In organic production the highest percentage, 45% are permanent pasture, followed by cereals with 15%, and permanent crops by 13% while animal production covers only 1% of production.

## The importance of organic production in Croatia and comparison to Koprivnica-Križevci County

Organic production in Croatia has only just begun. Although the surface area on which organic products are grown is doubled in recent years, the numbers are still negligible. In Croatia, only 4 % of total agricultural land is under the regime of ecological production (Ministry of Agriculture, 2014 – forward mentioned as MAFRD), which is much less than most European countries.

Nevertheless, our producers have much more problems with placing such products on the market. Yet, such a production is not massive, it requires more effort, and ultimately gives a smaller yield. It all leads to higher prices of final products for which people sometimes are, and often are not willing to pay more.

The most important factor in the development of organic farming is a market, where the farm as a basic unit of the organic food market, faces a number of problems, such as: legislation (Zanoli and Jukic, 2005), education about the methods of organic farming and organic food production (Petkovic, 2002), higher costs (Ribic Dugandžić, 2007; Stefanic et al., 2001) and narrowed distribution channels ( Richter et al., 2000; Richter and Hempfling, 2002; Richter, 2005; Zanoli and Jukic, 2005) .

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<sup>1</sup><http://www.ekopoduzetnik.com/tekstovi/eko-proizvodnja-eu-raste-500-000-ha-godisnje-14725/>

Table 1

Number of individuals and legal entities in organic production in Croatia

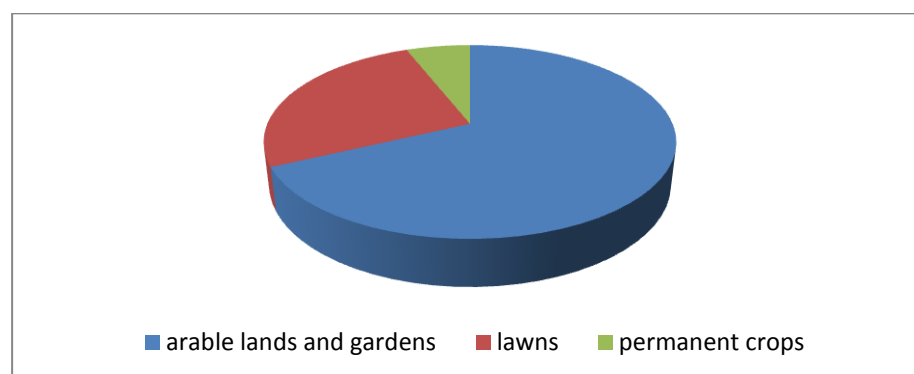
Year	Number of producers
2003.	130
2004.	189
2005.	269
2006.	342
2007.	477
2008.	632
2009.	817
2010.	1125
2011.	1494
2012.	1528
2013.	1609
2014.	2194

Source: Ministry of Agriculture

The demand for organic products in Croatia is steadily growing, especially among the urban population and tourists. Customers prefer domestic organic products of excellent quality.

Figure 1

The structure of agricultural land in the Republic of Croatia, 2013



Source: Ministry of Agriculture, 2014

In spite of the gradual growth of organic production in Croatia, conventional production prevails, and is characterized by the use of fertilizers, chemicals and treated seed. To switch from conventional to eco production one must first contact inspection station, the Authority of the MAFRD, which will define a transition period in which the land needs to be cleaned of synthetic substances. The eco-farming can use only organically seed approved by the MAFRD and the inspection body.

Currently, such a seed for larger areas can't be found in Croatia and is imported from the Netherlands and other EU countries, while the eco-seeds for personal use can be found in one of the seed stores, it can be grown or purchased of eco-farmers.

Table 2

Share of organic production surfaces in relation to the total utilized agricultural land

YEAR	TOTAL USED AGRICULTURAL LAND ha	ECOLOGICAL AGRICULTURAL PRODUCTION ha	SHARE OF ECOLOGICAL AREA IN TOTAL USED AGRICULTURAL LAND %
2010.	1.300.000,00	23.282,37	1,80
2011.	1.300.000,00	32.035,80	2,46
2012.	1.300.000,00	31.903,59	2,45
2013.	1.300.000,00	40.576,00	3,12
2014.	1.240,452,00	50.054,22	4,03

Source: Ministry of agriculture, 2014.

In Croatia, according to data from MAFRD, 2014, 2.194 organic farmers are recorded, while in 2002 there were only two. Last year, organic agricultural production in Croatia was spread over more than 50,000 hectares, of which orchards occupied 3.942 hectares and vegetable crops, 350 hectares.

Koprivnica-Krizevci County is regarded as one of the strongest agricultural counties in the Republic of Croatia, this particularly relates to the production of milk and meat. But unlike other counties, organic production finds it difficult to include new supporters and producers. As long as the sale of milk and meat was good with relatively good prices, no one thought of other possibilities. With the emergence of problems of milk purchase, but also more expensive production in general, due to the high prices of inputs, some producers nevertheless began to think about possible alternatives.

According to statistics from MAFRD 2013, in Koprivnica-Križevci county there was 21 registered manufacturers of certified organic products on the 170 hectares (MAFRD, 2013).

## Methodology

As a part of this research, a survey regarding habits of buying organic products, as well as knowledge of the concept of organic food, was conducted among consumers in Koprivnica-Krizevci County on a sample of 165 respondents.

The survey was conducted in February 2015, based on a structured questionnaire of 12 questions involving knowledge of the notion of environmentally certified products, knowledge of Demeter mark, frequency of buying organic food, socio - demographic data of respondents and comparison of organic products with conventional.

Data were analyzed using analysis of relative and absolute frequencies and are shown on suitable charts.

## Results

Research has shown that 76% of respondents rather bought organic products, when purchasing. 67% of respondents answered affirmative, ie, that environmentally certified products are of higher quality than conventional. It is also very interesting fact that only 28% of respondents know the meaning of Demeter mark, although most of them (86%) are familiar with the concept of certified organic products.

Respondents frequently bought food (70%), 25% of them bought drink, 24% cosmetics, 14% household items, and 19% dietary supplements.

Table 3

Where do you purchase organic products?

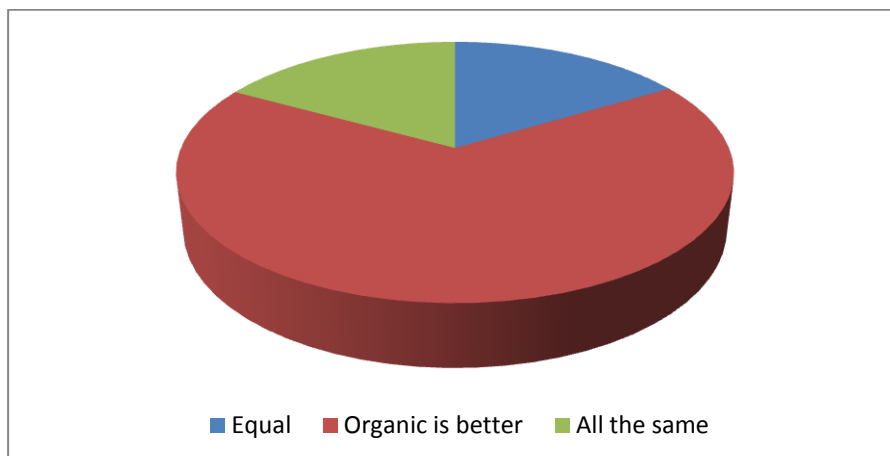
<b>Market / Butcher store</b>	<b>20 respondents</b>
<b>Grocery store / Supermarket</b>	69 respondents
<b>Own garden</b>	50 respondents
<b>Own animals</b>	18 respondents
<b>Specialized stores</b>	47 respondents
<b>Manufacturer</b>	10 respondents
<b>Other</b>	21 respondents

Source: Our survey, 2015.

Furthermore, although they are attracted to the product quality, lower purchase of these products is the result of high prices of organic products. Given the intensity, it is shown that only 10% of respondents buy eco products once a week, never 17%, the largest number of respondents, 73% purchases eco products from time to time. Nevertheless, 78% of respondents believe that the offer of organic products is too low.

Figure 2

The relationship of respondents regarding conventional VS organic products



Source: Our survey, 2015.

These results suggest that the awareness of buying organic products is present, as well as the quality of eco - products, but due to the high cost it is very low degree of their use in everyday consumption. One of the major reasons for this results, possibly is the fact that almost half of the respondents have some form of own production of organic products.

## Conclusion

The main objective of this study was to determine whether the respondents are familiar with organic farming, to which extent is organic farming part of their life and diet, and what are consuming habits of the same.

The survey showed that 73 % of respondents, at the average age of 20-50 years buys certified organic products on average once a month, that they are mostly attracted to product quality and environmental management, and mainly rejected by prices. In comparison with conventional/organic product, the respondents are of the opinion that eco- certified products are of higher quality and that their offer on

the market is too small. From the types of products most respondents buy food, then drinks and cosmetics, and on the last place, household items.

Modern science has found that a large number of diseases has a direct causal link with the quality of the food we eat and the emergence of a variety of residues that remain in the plants after application of chemicals. The study which was conducted in 2014., Barański and colleagues<sup>2</sup> made a statistical analysis of 343 studies. This analysis suggests that the conventional grown food has up to four times greater amount of pesticides and a greater amount of potentially hazardous metal, cadmium. Organically grown food in turn, contains significantly more antioxidants, which, based on other studies, have positive effects in the prevention of cardiovascular and neurodegenerative diseases and some types of cancer.

The interests of man and life habits can be easily changed by changing our awareness of things around us, even though we all individually perceived them to our particular way.

Something that comes from nature cannot be a bad thing, it's just a man who forgot his true path during evolution.

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