

What the customers really want: organic food market in Croatia?

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Was die Konsumenten wirklich wünschen: der Markt für biologische Lebensmittel in Kroatien

1. Introduction

Organic agriculture in Croatia is still at the beginning of its development. There is no national association of organic producers or national law to regulate the organic production, marketing and control. However, there are several regional organisations that try to facilitate development of organic agriculture. During 1997 Eastern Croatia got the first association of Croatian organic producers named BIOPA. Supported by Friedensbrugg Leimentall and Forschungsinstitut für biologischen Landbau Frick, BIOPA started to organize a small group of farmers who were ready to start with organic production.

Organic farming in the Republic of Croatia has marginal importance for national agriculture. There are several reasons for this situation. The market is not yet developed, in general prices are high, buying power very low, agricultural inputs are expensive and farmers have difficulties collecting their accounts receivable. Moreover, absence of know-how for organic agriculture seems to be an important factor. Economic situation in Croatia during the nineties was strongly influenced by several factors: transition from planned to market economy, disintegration of former federal state and breakdown of existing market flows together with war from 1991 till 1996. In December 1999, the average family with three members had 455 Euro¹ available

Zusammenfassung

Innerhalb der Landwirtschaft in Kroatien befindet sich die biologische Produktion von Lebensmitteln erst in den Anfängen. Das Ziel der vorliegenden Untersuchung ist es, erste Informationen über den Markt für biologische Lebensmittel in Kroatien zu gewinnen. Die Forschungsfragen fokussieren sich auf fünf Bereiche: die Einstellung der Konsumenten zu biologischen Lebensmitteln, Zahlen und Fakten über die existierenden Märkte, Informationsgrundlagen für die Kaufentscheidung, erwartete Preisniveaus für zertifizierte und nicht zertifizierte biologische Lebensmittel und die Bedeutung des Exports für die inländische Produktion biologischer Lebensmittel. Im Sommer 1999 wurde als Basis der Untersuchung eine Konsumentenbefragung in der Stadt Osijek durchgeführt. Die Bereitschaft zum Kauf von biologischen Lebensmitteln in Kroatien konnte bestätigt werden. Einen wichtigen Einfluss auf das Preisniveau stellt die Zertifizierung der biologischen Produkte dar.

Schlagerworte: biologische Lebensmittel, Marktanalyse, Konsumentenverhalten, Kroatien.

Summary

Organic farming in the Republic of Croatia has marginal importance for national agriculture. The objective of this investigation was to find out more about local market for organic food. There are five main parts of the investigation: customers attitude towards organic food, facts about the existing market, information important to make purchase decision, price expectations for noncertified and certified organic food, and the importance of export for the success of the project. A market survey was conducted in the City of Osijek during the summer of 1999. The investigation confirmed that consumers are willing to buy organically grown agricultural produce. Analysis shows that certification of products is an important factor for pricing.

Key words: organic farming startup, marketing for organic produce, Croatia.

to cover household expenses. About 60% from the total budget was spent on food and drinks (ANONYMOUS, 1999). Moreover, agricultural credits are very limited and under unfavourable terms.

However, the situation in Eastern Croatia has several strong points in favour of start-up in organic farming. Due to the difficult economic situation private farmers have decreased quantities of mineral fertilizers and pesticides over the past ten years. A significant part of arable land was out of production for several years, and the number of small farms with an adequate labour force is high. There is one more important fact, Osijek, the fourth largest city in Croatia, is in the middle of region and together with other Eastern Croatian cities might be the most important market for organic food produced locally.

The biggest problem for farmers seems to be the lack of reliable information about the local market for organic produce. Production technology can be learned with the help of their association, local agricultural schools, extension services or in other ways. But if farmers do not know what to produce, who are the customers and how much they are willing to pay, what are appropriate distribution channels and many other important information for successful marketing, they would hesitate to convert from conventional to organic farming.

So based on this situation the objective of this investigation was to find out more about local market for organic food in Croatia. There are five main parts of the investigation:

1. customers attitude towards organic food,
2. facts about the existing market,
3. information important to make purchase decisions,
4. price expectations for noncertified and certified organic food, and
5. importance of export for the success of the project.

2. Material and methods

A market survey was conducted in the City of Osijek during the summer of 1999 with a sample of 250 randomly selected customers. Customers were interviewed at two major marketplaces in Osijek during all weekdays and weekends. The questionnaire was designed according the recommendation of CZAJA and BLAIR (1996) and estimated time to finish the interview was less than 20 minutes. The questionnaire was pretested before the investigation.

A small subsample of 20 customers represented young

mothers who were interviewed at a medical care institution during the regular medical check of the babies.

To measure customers attitude, factors influencing purchase and price expectations and share of organic food in their households (research objectives 1–4) customers were interviewed at two major market places. With these data the influence of several discriminant variables on decisions to buy the organic food was investigated. These variables are: type of family, family income per month, type of the customer and gender. To check the differences among various subgroups contingency coefficient, Kramer's V and Phi coefficient were calculated. Additionally, canonical discriminant analysis was deployed.

To get information about future export markets expert interviews with various merchants were made in Switzerland and Eastern Croatia in October 1998 (research objective 5).

Collected data were organised in a spreadsheet and processed with help of SPSS 9.0 for Windows.

3. Results and discussion

At the time when investigation was conducted the only organic produce available on local market was goat cheese produced by Lehki farm and cow cheese produced by Jazbec farm. All other products were not certified. Additionally, very few products were imported. The investigation confirmed the presence of consumers who were ready to buy organically grown agricultural produce. Producers and customers were not informed well about the organic agriculture, but they were willing to learn more. Analysis shows that socioeconomic characteristics of interviewed customers are important factors in their behaviour.

3.1 How much customers know about the whole idea?

On the very beginning of the project preliminary results showed that customers are not well informed about the whole concept of organic agriculture. After the investigation was finished, results showed that 161 out of 250 examinees (64%) said they are sufficiently informed, but only 86 of them defined the organic agriculture like production without mineral fertilizers and pesticides. Organic agriculture also meant for examinees healthy nutrition, food production in natural ways, production in green houses and some of them connected organic farming with some brand names. More than one third of the examinees could not define

organic agriculture at all. Organic brand names that interviewed customers could specify were "Hipp" (26 % of interviewees) and Demeter (only two cases). Local association of organic farmers ("Biopa") was known only in one case.

3.2 Attitude towards organic food

Taking into consideration the fact that organic food in Croatia is imported or produced in Croatia but with no certificate the following chart may be encouraging for farmers to convert their farms to organic farming. Figure 1 shows the customers attitude towards purchase of organic food.

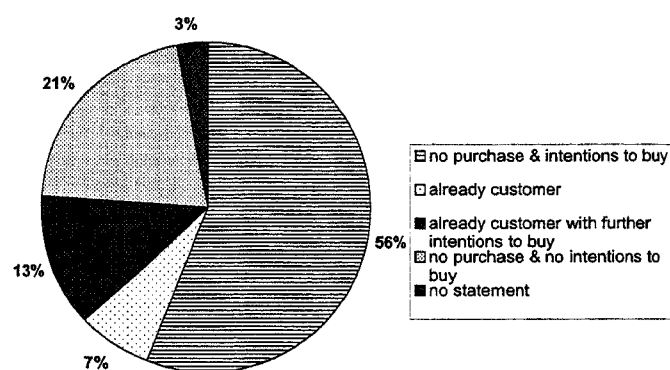


Figure 1: Customers attitude towards organic food in eastern Croatia
 Abbildung 1: Einstellung der Konsumenten zu biologischen Lebensmitteln in Ost-Kroatien

There are four main groups of the customers. To the first group belong 3 % of examinees and they did not made any statement about current purchases, but 1,6 % of them would be willing to try organic produce. Second group (21 %) represents people without current purchases nor intentions to buy. The largest group represents 56 % of examinees who did not make any purchases so far but they are ready to try organic food in the future. During the investigation 20.2 % of interviewed customers already tried at least one of the organic produce, but only 13.1 % of them have future intentions to buy organic produce.

3.3 Does the market for organic food in Eastern Croatia already exist?

As stated before, 20.2 % of examinees claim they are consumers of organic products but only 17.7 % gave the num-

bers about share of organic food in total food consumed. Details about share for various products are given in table 1.

Table 1: Share of organic food in total food consumed for various products in Eastern Croatia

Tabella 1: Anteil biologischer Lebensmittel am Lebensmittelkonsum für ausgewählte Produkte in Ost-Kroatien

Product categories	No purchase	1-20 %*	21-50 %*	>50 %*
Fruits	85.7	6.4	4.4	3.6
Vegetables	86.5	2.8	6.0	4.8
Meat	95.2	2.0	1.2	1.6
Eggs	95.6	1.6	0.4	2.4
Cheese	95.2	1.6	1.2	2.0
Milk	95.2	2.8	1.2	0.8
Other	97.2	1.6	1.2	-

* share of organic food

For all those farmers who plan to start or expand organic production results shown in the Table 1 are important. Since 14.4 % of customers buy organic fruits, and 13.6 % of customers buy organic vegetables, it is clear that a market for those products exists. For all other products less than 5 % of buyers were recorded. There were 5.6 % of customers who tried just one type of organic food, 6 % who tried two products (mostly fruits and vegetables), 0.4 % who tried three or four products, 1.2 % of customers with five products and 3.2 % of customers who tried six types of organic produce. There were no customers who tried organic oils and flour.

3.4 How customers make their purchase decisions?

The next step of this investigation was to find out what characteristics of the food are appreciated and what are the sources of information. Frequency and source of information used in food purchase decisions are shown in table 2. Sign of quality or origin, label and brand name are most important sources of information for purchase decisions. Sales person information, advertising and independent reports are less frequently used. Approximately, one half of the customers did not specify the frequency of use for various sources of information concerning their purchase decisions (see table 2).

Characteristics of the organic food are very important to the customers. Results of the investigation show that two statements about organic food are appreciated in largest number of cases, organic food is very healthy and produc-

Table 2: Sources of information about products important for purchase decision (%)
 Tabelle 2: Wichtige Produkt-Informationsquellen in Bezug auf die Kaufentscheidung

Sources of information	Use always	Use frequently	Use sometimes	Use seldom	Never use	No answer
Sign of quality or origin	18.7	17.9	9.1	2.0	2.4	50.0
Label	19.8	14.7	10.7	2.8	1.6	50.4
Sales person information	8.3	15.5	12.3	9.9	4.0	50.0
Advertising	3.6	15.9	15.1	8.7	6.3	50.4
Brand name	14.7	25.8	6.0	2.0	1.2	50.4
Independent reports	4.4	13.9	17.9	8.7	4.8	50.4
Other	2.4	2.4	6.3	0.8	1.2	86.9

Table 3: Expected prices for noncertified and certified organic food
 Tabelle 3: Preiserwartungen für nicht-zertifizierte und zertifizierte biologische Lebensmittel

Product categories	Conventional	Organic, without certificate	Organic, with certificate
Apples	100.00	86.34	114.07
Cucumbers	100.00	85.67	116.13
Tomatoes	100.00	87.30	111.15
Bellpepers	100.00	84.44	107.57
Beef	100.00	85.04	104.02
Eggs	100.00	91.12	113.15
Cheese	100.00	73.98	90.25
Milk	100.00	85.53	113.14

tion does not burden the environment. With the statements that organic food is very fresh and has pleasant appearance and special taste fully agree less than one third of examined customers. Almost 90 % of the customers fully disagree with the statement that organic food is cheap. However, prices that interviewed customers are ready to pay are shown in table 3.

Customers are ready to pay more for certified organic food in comparison to conventionally produced food (except for cheese). Specially for apples, cucumbers, tomatoes, eggs and milk they are willing to pay between 11 to 16 % in excess. Otherwise, for organic food without certificate they expect to pay even less than for conventional food. The most frequently mentioned reason for willingness of paying lower prices were expected lower production costs of farmers. An increase in 15 % for certified organic food is consistent with Coop natura plan results in Switzerland (ANONYMOUS, 2000) and with a survey of Austrian consumers (between 15 and 19 %; BRÄUER, 1998, 128).

3.5 Profile of the potential customer of organic food

Results of the investigation show that information about organic agriculture is the most important factor for pur-

chase of organic produce (Phi, Cramer's V and Contingency Coefficient have the value of 0.219 and significance level is 0.017). Customer's gender, family income, family type and type of the buyer did not show significant differences in customers behaviour concerning purchase of organic food. A model obtained with help of canonical discriminant analysis could not separate the customers regarding their purchases of organic food clearly. Furthermore, proper classification of customers (with future intentions to buy) was unacceptably low.

This corresponds with findings from separate international studies. FRICKE and V. ALVENSLEBEN (1997) did a longitudinal analysis in Germany with consumers of organic farming products. They found a small direct influence of sociodemographic variables like age, income or household on consumer behaviour. But the direct influence of these "stimulus" variables (in the sense of S-O-R) on purchase behaviour is much weaker than the indirect influence over the attitudes. The attitudes again have a high relevance for explanation of consumer behaviour (FRICKE and V. ALVENSLEBEN, 1997). Another study about Austrian farmers market consumers came to similar conclusions concerning the sociodemographic variables. It found no influence of sociodemographic variables on consumer behaviour (MEIXNER, 1998). BRÄUER (1998) who did a market segmentation study for organic convenience food in Austria

found only significant differences in the location of living (city or rural areas) on consumer behaviour. He found no significant differences by gender, age, income, household size, education and profession.

3.6 Importance of export and international co-operation for the success of the project

Despite the fact that agricultural industries in many countries are suffering their most severe economic challenges for decades, organic sector is developing in terms of public profile, consumer demand and the number of producers converting to organic production. Organic farming has grown in an ad hoc manner in many countries. There were plenty of standards, symbols and agencies and little international or even national standards. Since the lower variable production costs in organic farming are outweighed by lower absolute yields and higher labour demands, organic farming can be profitable if their produce fetches premium price (LAMPKIN and PADEL, 1994). However, many farmers who converted their farms to organic production were not driven by purely economic criteria but also by ethical and ecological criteria such as maintenance or improvement of soil quality, reduction of chemical residues in food, or simply production of own food (MOLDER et al., 1991).

After initial phases, where almost every farmer had his own story determined by their background education, training, attachment to different group and ideologies, access to knowledge and different kinds of knowledges organic farming entered a phase of institutionalization. At this stage appears the tendency to reduce the diversity in practices and philosophies. A final aspect of the institutionalization is that organic products are distributed through traditional channels like supermarkets (KRISTENSEN and NIELSEN, 1997), which are the basis for high volume sales.

There was a case in Central and Eastern Europe when some entrepreneurs decided to start organic farming in their country exclusively for export. Lack of a domestic market forced them to import a lot of inputs which were not available locally (STEFANIĆ, 1998). After detailed analysis, it is clear that export oriented organic farming only is not suitable for Eastern Croatia for several reasons. During initial phase the quantities are rather small and quality might be the problem. Furthermore there are just few merchants ready to trade with produce from conversion periods, the prices, are hardly competitive to conventional goods, there are special requirements in transportation for

some produce, and there is no internationally recognized control in Croatia. However, export might have very beneficial side effects on development of domestic markets. Export to EU or somewhere else could be a strong point in promotion and advertising, and excess quantities could be sold abroad. Besides, production for developed markets could solve many marketing and management problems and help to avoid some mistakes in early stage of development.

4. Conclusions

There are four major groups of customers: first "already customer" (20 %), second "no purchase but with intentions to buy" (56 %), third "no purchase and no intentions to buy" (21 %). A fourth group (3 %) did not make any statement regarding purchase of organic food.

Results of the market survey in Osijek showed that 14.3 % of interviewees buy organic fruits and 13.5 % organic vegetables. Meat, eggs, cheese and milk were purchased in less than 5 % of the cases, and other produce in 2.8 %. In Austria 22 % of households buy organic fruits and vegetables and 27 % of households buy milk and meat products on markets and department stores specialized on organic food (BUNDESMINISTERIUM FÜR LAND- UND FORSTWIRTSCHAFT, 1997). These numbers are not comparable one to one (because department stores are also included), nevertheless they illustrate the future potential, specially for meat and milk products.

Most trusted sources for information used to make decision to buy food are signs of quality or origin and labels. Important roles play brand names and sales persons information.

Customers in Eastern Croatia expect to pay less for organic food without certificate than conventionally grown food (9–26 %) but for certified organic food they are willing to pay 4–16 % more in comparison to conventional food with exception of cheese.

A profile of the typical customer for organic produce in Eastern Croatia is hard to define. However it is clear that customer must be well informed.

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Note

1 Exchange rate on April 3rd, 2000 was 7.736892 Croatian kunas for 1 Euro.

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