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Marketing study on organic and other selected special quality products from Croatia

Final Publishable Report

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Executive Summary

This document contains the results of a study conducted to collect information to be used in devising a marketing strategy for Croatian organic and Protected designation of origin (PDO), Protected geographic indication (PGI) and Traditional specialty guaranteed (TSG) products.

In part one, the main performance indicators of Croatian agriculture are analysed with an emphasis on organic farming and an overview of legislation governing organic farming and PDO, PGI and TSG products.

Part two reports the results of the fieldwork carried out by means of direct interviews to Croatian and foreign consumers, producers, distributors and policymakers to collect data to achieve a better understanding of the demand for and supply of organic food in the Country.

Finally, the current situation and the strengths, weaknesses, opportunities and threats for the development of Croatian organic production are described. Some indications for the marketing strategy for organic and PDO, PGI, and TSG products are also proposed.

1. INTRODUCTION

1.1. Background

The current situation of Croatian agriculture must be examined and assessed in the light of some recent factors that have influenced its performance.

The war and the transition of the economy from State-planned to market-oriented caused a significant reduction in agricultural production in the early 1990s which, coupled to the sector's traditional inability to meet the internal demand in terms of quality, resulted in an increased and alarming dependence on food imports. In the mid 1990s, the urgent need was thus felt to raise production and make it more competitive both on national and international markets.

The upgrading of Croatian agriculture began in 1995 with the adoption of the Agriculture Development Strategy, whereby family farms were proclaimed the pillars of its development. Croatian WTO membership in 2000, the approach to the EU, and the signing of numerous bilateral free trade agreements brought new challenges in the form both of opportunities –new markets— and requirements. Among the latter, the need to meet international food quality and safety standards led to the adoption of legislation on various aspects of food quality, signally the Food Act (N.N. 117/03).

Many other laws and regulations, passed over the last few years, have focused on competitiveness, with an emphasis on quality, sustainability and rural development, the principal being the Agricultural Act (N.N. 66/01, 83/02), the Farming Land Act (N.N. 66/01, 87/02), the Organic Production Act (N.N. 12/01), the Agricultural Strategy (N.N 89/02), the law regulating State subsidies in agriculture, fisheries and forestry (N.N. 87/02), and the Wine Act (96/03).

Given the new objectives of Croatian agriculture, i.e. to increase production of high-quality produce meeting international standards and competing on foreign markets, organic farming and labelling of high-quality food products (protection of designation of origin, of geographic indication and traditional specialty) clearly have strategic importance.

Organic production and protection of designations of origin have recently been regulated. However, whereas the Organic Production Act, passed in 2001 and completed by numerous ordinances, is operative, the measures regarding protection of designations of origin and geographic indications, which are regulated in the Food Act, will become effective only in 2006, a situation that is giving rise to different growth rates of the respective production sectors.

1.2. Project aims

The present study was undertaken to contribute to the development of environment-friendly agricultural production in Croatia by analysing its market potential and requirements for a number of crop and livestock products (organic, PDO[1], PGI[2], TSG[3]), and to propose recommendations for product development, marketing, and organization. To do this, the main supply channels and the regulations governing production and distribution were analysed and the demand for organic and special-quality products was evaluated with reference both to domestic and international markets.

The study was organized into distinct and complementary phases, making it possible to set specific goals for each phase.

The first consisted of a literature search and data collection on the main aspects of the Croatian agri-food sector. Given that organic farming suffers from either the specific and the general traditional problems of Croatian agriculture, this broader context was investigated by evaluating agricultural land, employment, farm structure, production, domestic demand and supply, trade with the main commercial partners and the main import and export goods.

The legislative framework governing organic as well as the PDO, PGI and TSG status of products, and their processing, distribution and certification process were evaluated; statistical data were collected and the main indices of organic production calculated.

The scarcity of official data required gaining further information through fieldwork (second phase), which consisted of direct interviews and telephone or paper-and-pencil interviews. For a more exhaustive study of the demand for and supply of organic food, a sample of producers, importers, wholesalers and marketers of organic products were interviewed. Four different questionnaires were devised to collect information that might allow policymakers to devise a marketing strategy for Croatian organic and high-quality food products[4].

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[1] Protected designation of origin.

[2] Protected geographic indication.

[3] Traditional specialty guaranteed.

[4] The fieldwork was preceded by an analysis of previous studies of organic and special-quality products. Among these, a prominent role had a 2001 study by EKO LIBURNIJA "Analysis of consumer levels of acquaintance with organic food products in the Republic of Croatia", not only for its contents but also for the size of the sample investigated: 600 interviewees from rural and urban areas throughout the Country. The study provides important data on the habits of Croatian consumers with regard to the purchase of food products: the places where they shop, the importance of logos and quality labels, and their attention to the information reported on products. The study also contains interesting data on their degree of acquaintance with organic products and their ability to distinguish organic from home-grown food, as well as an estimate of current and potential demand for organic food in Croatia. Many of the results of the Eko Liburnija study were confirmed by our work, which was however broader as it included elements such as the habits of Croatian consumers, the characteristics of tourist demand, the level of acquaintance with organic logos, and data on the demand for PDO, PGI and TSG products.

1.3. Material and methods

Each phase of the work was characterized by a specific structure and a distinct methodological approach.

The data collection phase was based on consultation of paper and electronic archives available at Croatian and Italian university libraries, research centres and institutions (Ministry of Agriculture, Forestry and Water Management, Croatian Chamber of Commerce). An extensive Internet search was also performed. Statistical data on conventional and organic farming were collected from institutional sources (Croatian Bureau of Statistics, Croatian Chamber of Commerce) and the Ministry of Agriculture, Forestry and Water Management. Data on registered PGI were provided directly by the State intellectual property office.

The fieldwork consisted of personal interviews with consumers. The characteristics of domestic demand were estimated by interviewing Croatian consumers; the potential demand for Croatian organic and labelled products from tourists and foreign markets was estimated by interviewing tourists. Given both the short time available in which to perform the study and the limited resources, 200 Croatian consumers and 200 tourists were interviewed based on their place of residence, occupation and family composition.

The 200 Croatian consumers were selected as follows:

- 25% living in Zagreb, 25% in Split, 25% in Rijeka and 25% in Dubrovnik, with a view to sampling the main Croatian cities and, at the same time, the areas where tourists would also be found. This resulted in the study being conducted only in the coastal areas, leaving out the northern areas of the country.
- 50% of interviewees aged 25 to 46 years and 50% aged 46 to 65 years; younger and older subjects were excluded because their food-shopping habits are scarcely rep of the pop.
- At least 10% of singles/widowed subjects.
- No more than 5% of unemployed individuals. Considering the high level of unemployment in Croatia, the risk of a sample with an excessive number of unemployed was very high. Since the unemployed are not significant consumers of organic products, this criterion was directed at reducing the number of people offering scarce information.

Two general conditions were that interviewees be consumers buying food for themselves and their families, and that at least 25% be acquainted with organic farming and at least 25% with the “Croatian quality” and “Croatian creation” certificates.

The tourist sample needed to meet the same requirements was to be made up of at least 50% of Italians, at least 25% of consumers from other EU countries and, if possible, 25% of non-EU nationals. Meeting of inclusion criteria required interviewing 214 Croatian consumers and 255 tourists.

The questionnaire for Croatian consumers[5] was made up of four sections with 37 questions. The preliminary section – the screening questionnaire – included 9 questions regarding place of residence, sex, age, job, family composition and level of education. This section also contained two questions–G and K– that were used to define the proportion of those acquainted with organic farming and some Croatian special-quality certificates. Only consumers acquainted with at least two categories of food products were asked to answer the remaining questions.

Section 1 contained 6 questions aimed at understanding and defining the demand for food products. The main fears of consumers when purchasing food products, the ways to allay those fears, and the importance of purchasing high-quality food were also investigated in this section.

Section 2 (15 questions) focused on organic food products. Consumer knowledge and information about organic farming were the subject of the first four questions. An estimate of the actual demand for organic food and its consumption was also performed. Other questions asked for opinions concerning the certification process and the characteristics of organic food products, and served to identify key problems that will need to be addressed when devising a market strategy for boosting the Croatian organic market.

The subsection entitled WTP (Willingness to pay) contained 5 questions directed at identifying the priorities of Croatian consumers with reference to the origin (Croatian or EU), nature (organic or conventional), and price of products. These questions made it possible to evaluate the additional price that consumers would be willing to pay for healthier and safer food. This part also tested their willingness to pay for organic extra-virgin olive oil.

Section 3 (14 questions) addressed the demand for certified food products. The legal discipline and marketing aspects of PDO, PGI and TCG products in Croatia (see part I, chapter 2.3) led to analyse the demand for quality-label products through an evaluation of food bearing the "Croatian quality" and "Croatian creation" labels. These are different from PDO products and bear clear logos; their study was thus considered useful to gain information on the influence of quality marks on Croatian consumers, the attention they pay to labels and certificates, their trust in them, and how special-quality indications influence purchases. Questions on the level of knowledge and information about certified products were followed by questions aiming to estimate the effective demand for and consumption of certified food products. The opinions of Croatian consumers concerning certified food products were also recorded.

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[5] This and the other questionnaires, in English and Croatian, are available from requests from the Authors of this study.

The questionnaire for tourists was prepared in Croatian, English and Italian. We felt it was important to interview tourists from Croatia's main commercial partners (Italy, Bosnia and Herzegovina, and Slovenia) to evaluate the potential for the expansion of the demand for organic and special-quality products on foreign markets. The structure of this questionnaire matched the structure of the questionnaires for Croatian consumers with the exception of the willingness to pay for organic products. The section on organic food contained questions to evaluate tourist demand for organic food products both on the Croatian and their national markets.

Finally, a third questionnaire was used to collect information from the main importers, distributors, marketers and some producers of organic products in Croatia. The questionnaire for distributors included 26 questions divided into two parts. The first – the screening questionnaire – was focused on the characteristics of companies (e.g. producers, wholesalers, retailers) and the proportion of organic products and food articles they sell. Interviews with foreign importers of Croatian organic food were also envisaged, but during the study it emerged that there is no export of certified organic food from Croatia. The second part of the questionnaire asked for opinions on the characteristics of the organic supply in Croatia. Both Croatian and foreign organic food products were included and respondents were asked to compare them for different aspects of the marketing mix. Other questions made it possible to better define the Croatian organic food market.

The interviews with producers and distributors were carried out by direct, phone or mail interviews.

Data were collected in a database using the SPSS software. Data analysis was carried out using SPSS and non-parametric tests (χ square test, asymptotic significance level, two-tailed significance level, Z, Wilcoxon's W and Mann-Whitney U tests).

Part one

2. DESK ANALYSIS AND LITERATURE REVIEW

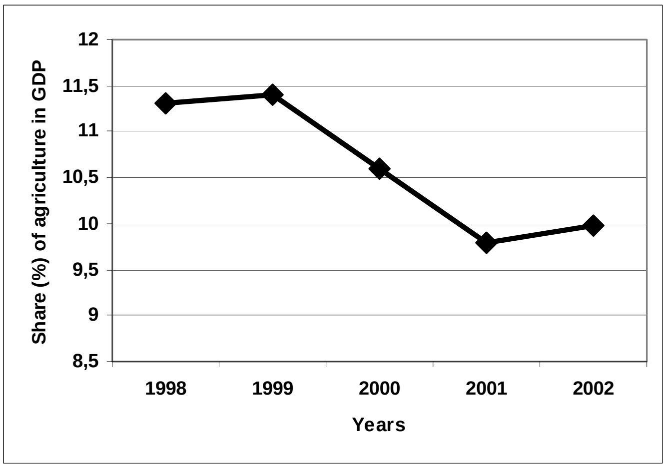
2.1. General trends of Croatian agriculture

Gross domestic product, employment and agrarian structure

In 2002, the overall GDP share of agriculture, hunting, forestry, fisheries and the food-processing industry was 9.97% (17,558 million Kunas[6]), with agriculture, hunting, forestry and fisheries accounting for 6.87% (12,126 million Kunas) and the food-processing industry for 3.1% (5,432 million Kunas) (Ministry of Agriculture, Forestry and Water Management, 2003).

The role of agriculture in the economy and its share of GDP have continuously declined in recent years (Diagram 1), with an upturn being recorded only in 2002.

Diagram 1 – GDP share of agriculture (1998 – 2002)



Source: Our processing of Ministry of Agriculture, Forestry and Water Management data, 2003

According to the 2001 census, the agricultural population in that year accounted for 5.5% of the population, having undergone a continuous decline from 29.1% in 1971 to 15.2% in 1981[7].

Total employment in agriculture and the food-processing industry was 11.09%, with farming, hunting, forestry and fisheries accounting for 7.78% (n=105,671) and the food-processing industry for 3.31% (n = 45,003). Despite its limited share of the economy, the food,

[6] Average annual exchange rate in 2002: 1 HRK / 7.863712 USD, Hrvatska Narodna Banka, Godisnji i mjesecni devizni tecajevi, HNB, 2004.

[7] Women employed in the agriculture, hunting and forestry sectors are slightly less than in the other sectors, where they account for some 30%. In farming and fisheries they are respectively 23% and 15%.

beverages and tobacco industry has performed very well and had the largest total income and employment rate in the Croatian processing industry (Croatian Chamber of Commerce, 2004). By contrast, farming jobs are declining.

The average wages in the agricultural sector have risen in the last few years. While the average salaries in the tobacco processing industry are much higher than the national average, and those in the food and beverages industry are in line with it, they are considerably lower in agriculture, particularly in the fisheries[8].

As regards resource ownership, State ownership is still predominant in agriculture, hunting and forestry and accounts for nearly 50% of resources, whereas private ownership is predominant in the fisheries (73%), followed by mixed ownership (20%); co-operatives have a negligible role.

With reference to land use, some 80% is farmed by private family farms, and the remaining 20% by legal entities and parts of legal entities or is State-owned land not currently used for agricultural production[9].

2.2. Production

Three climatic and geographic zones can be distinguished in Croatia: the lowland North-East with a continental climate, the coastal zone with a Mediterranean climate, and the mountain area in the central part of the country. These differences cause an uneven distribution of agricultural production.

2.2.1. Agricultural production

As shown in table 1.1., almost 50% of the agricultural land is arable land. Pastures and meadows are also extensive, whereas cultures such as vineyards, olive groves and fruit orchards have a marginal share if the surface used for different cultivations is considered.

There are wide differences among Counties with reference to agricultural production. The principal stem from the availability of arable land. The largest share of total agricultural production is in the northern Counties, while some typical productions, such as Mediterranean produce, are concentrated in limited coastal areas. These productions account for a small proportion of total agricultural production. The share of the different cultures in the various

[8] The average Croatian monthly salary in 2002 was 3,720 Kunas: 3,231 Kunas in agriculture, 2,635 in the fisheries sector, and 4,748 Kunas in the tobacco processing industry.

[9] In some Counties, however, the situation is very different, particularly in Lika-Senj, Split-Dalmatia and Zadar where sometimes more than 50% of surfaces are represented by legal entities and parts of legal entities and State-owned land not currently used for agricultural production.

Counties is quite variable. Table 1 reports the arable land farmed in each County as of 31 May 2002.

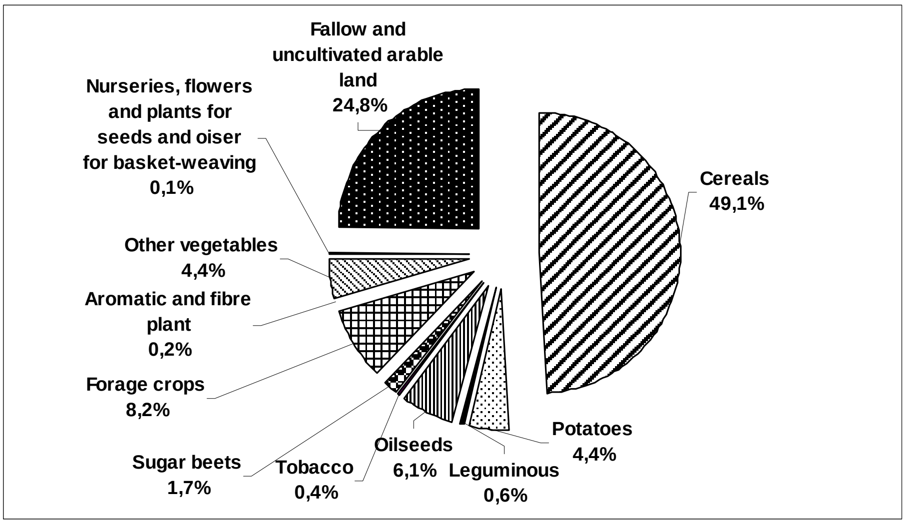
Table 1 – Agricultural land by type, culture, and County, 2002

	Agricultural land - hectares (ha)	Arable land - hectares (ha)	Fruit-orchards - hectares (ha)	Olive groves - hectares (ha)	Vineyard - hectares (ha)s	Meadow - hectares (ha)s	Pastures - hectares (ha)
Republic of Croatia	3,143,189	1,461,739	52,963	15,733	57,698	398,863	1,156,193
County of Zagreb	171,032	100,710	4,004		5,537	47,257	13,524
Krapina-Zagorje	70,502	36,653	2,868		3,699	18,020	9,262
Sisak-Mosavina	228,041	125,696	4,564		1,465	52,634	43,682
Karlovac	198,161	74,835	3,066		1,420	23,774	95,066
Varazdin	70,740	44,837	2,382		3,730	14,708	5,083
Koprivnica-Krizevci	103,952	69,702	2,303		2,741	27,007	2,199
Bjelovar-Bilogora	147,801	101,484	3,944		1,746	36,793	3,834
Primorje-Gorski kotar	142,077	13,391	536	1,716	1,145	30,596	94,693
Lika-Senj	268,126	56,184	1,229	132	110	54,661	155,810
Virovitica_Podravina	120,933	99,863	2,007		1,662	10,236	7,165
Pozega-Slavonia	89,375	60,181	2,457		1,132	13,512	12,093
Slavonski Brod-Posavina	116,511	88,999	2,707		933	11,066	12,806
County of Zadar	226,465	23,492	2,336	2,643	4,038	10,238	183,718
Osjek- Baranja	257,595	231,167	3,221		2,701	5,268	15,238
Sibenik-Knin	179,566	23,521	3,063	1,710	4,452	7,692	139,128
Vukovar-Sirmium	150,528	141,638	1,607		1,291	1,611	4,381
Split-Dalmatia	276,290	42,910	2,861	3,926	6,307	3,084	217,202
Istria	167,289	63,747	975	1,371	6,124	15,964	79,108
Dubrovnik-Neretva	76,972	9,885	2,545	4,235	4,814	611	54,882
Medimurje	53,074	37,009	2,948		1,147	10,038	1,932
City of Zagreb	28,159	15,835	1,340		1,504	4,093	5,387

Source: Croatian Bureau of Statistics, 2003

As regards the main destinations of farmed arable land, 50% is devoted to cereals, followed by sugar-beet, which alone accounts for some 25%, forage crops, aromatic and fibre plants and potatoes. Other cultures account for a small proportion of the arable land (Diagram 2).

Diagram 2 – Arable land farmed in Croatia, 2002



Source: our processing of Croatian Bureau of Statistics data, 2003

The amounts of the main crops produced in 1997 – 2002 are reported in Table 1Table 2.

Table 2 – Main crops (1997 – 2002)

Products	1997	1998	1999	2000	2001	2002
Total Cereals^	3,177	3,207	2,881	2,768	3,394	3,657
Wheat^	834	1,020	558	1,032	965	988
Maize^	2,183	1,982	2,135	1,526	2,212	2,502
Sugar-beet^	931	1,233	1,114	482	965	1,183
Olive trees^	87	162	221	149	157	218
Potatoes^	620	665	729	554	670	505
Apples^	58	72	67	81	32	59
Plums^	47	83	38	40	39	21
Grapes^	406	421	394	354	359	337
Olives^	10	21	35	16	19	33
Tropical fruit^	22	29	25	25	25	22
Cattle^^	451	443	438	427	438	417
Swine^^	1,176	1,166	1,362	1,233	1,234	1,286
Poultry^^	10,945	9,959	10,871	11,256	11,747	11,665
Milk*	621	633	622	607	653	
Eggs**	804	818	819	774	787	

(^ ,000 tonnes; ^^ ,000 heads; * million litres; ** millions)
Source: Croatian Chamber of Commerce, 2003

These data show that over 1997 – 2002 the production structure changed very little in terms of the main products: cereals, maize and sugar-beet. Poultry was the most significant animal production. In the same period, olive tree and olive production increased, whereas the production of grapes, potatoes and, especially, plums decreased.

2.2.2. Stock farming

Livestock is one of the principal Croatian agricultural productions. The main segment is represented by cattle, with some 100,000 family farms according to some estimates[10]. Swine are bred exclusively on small farms; it is a very low-quality product that cannot therefore be exported. The main productions are listed in Table 3.

Table 3 – Livestock and livestock products (1997 – 2000)

	1997	1998	1999	2000	2001	2002
Cattle (total)*	451	443	438	427	438	417
Beef**	54,238	53,807	65,693	62,908	56,387	68,402
Swine (total)*	1,175	1,166	1,362	1,233	1,234	1,286
Sheep*	453	427	488	528	539	580
Goats*	-	-	78	79	93	-
Poultry*	10,945	9,959	10,871	11,256	11,747	11,665
Horses*	-	16	13	11	10	8
Milk ^	n.a.	377,507	368,845	380,037	409,328	444,349
Eggs^^	804	818	819	774	787	-

(* ,000 heads; ** tonnes; ^ ,000 litres; ^ ^ million pieces)
Source: Ministry of Agriculture, Forestry and Water Management, 2003

Sheep and goat breeding, including a number of autochthonous breeds, has a long tradition and is growing, as also demonstrated by the data reported in table 1.3, through intensive and extensive techniques.

Poultry production is characterized by technologically advanced processes, prevalently on large and highly specialized farms, while family farms have a modest role. Data are extremely positive and the main product is eggs.

Horse rearing, again including several autochthonous breeds, has a marginal and declining role.

2.2.3. The fisheries sector

Fisheries is a growing sector. It has undergone profound modifications over the last decade, since both the operators and the main target species have changed, from public bodies exploiting small blue-fish for the processing industry to private operators fishing the more appreciated demersal species. Total marine fish catches are around 26,000 tonnes a year, with small blue-fish still accounting for 70%.

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[10] Average herd size=3 cows. The main product of this sector is milk.

Aquaculture, a sector with a great potential in Croatia, is still in its infancy. Production in 2001 was some 12,000 tonnes including marine fish (mainly sea bass, gilthead and tuna), freshwater fish (carp, trout) and shellfish (mussels and oysters). Trout, tuna, mussels and oysters are the fastest-growing productions. The fisheries used to be the sole sector that favourably affected the trade balance of the agricultural sector, since both the amount and the value of imports were far lower than those of exports.

2.2.4. Self-sufficiency of Croatian agriculture

Self-sufficiency has been achieved for few products: wheat, wine, eggs, maize and poultry. For the other products, the production structure is insufficient to meet the domestic demand, requiring substantial imports. An analysis of the production structure shows that the supply not only does not exploit the potential of the national market, but neither does it supply competitive products for export.

Exploitation of the full production potential of Croatian agriculture would meet the domestic demand, especially for some products, like olive oil, continental fruit and pork. Increased production of typical and high-quality products would allow their export.

2.2.5. The food-processing industry

Like agricultural production, the food-processing industry is concentrated in limited areas, mainly those where raw materials are produced (primary production areas) i.e. the northern zones.

Some typical productions of coastal areas have stimulated the development of food-processing plants there, signally fish-processing plants. However, these have diminished considerably over the last decades, leaving only 11 plants with an annual output of 15 tonnes.

Table 4 – Croatian agriculture: supply as a proportion of demand (%), 1997 – 2002

Product	1997	1998	1999	2000	2001	2002	1998-2002
Wheat	85	96	101	146	140	124	121
Wine	105	103	102	101	101	102	102
Eggs	99	105	103	100	100	100	102
Maize	100	109	101	92	92	100	100
Poultry	101	101	101	99	99	99	100
Olives	100	100	99	96	96	100	98
Potatoes	100	98	100	96	92	100	98
Vegetables	90	91	92	92	92	92	92
Sugar	85	92	92	82	82	96	91
Barley	89	90	89	81	81	79	87
Fruit	85	91	89	82	82	79	86
Pork	79	89	89	83	83	80	85
Milk	76	85	89	83	83	87	85
Sheep meat	69	71	79	79	79	75	77
Oil seeds	51	60	85	79	73	60	73

Source: Ministry of Agriculture, Forestry and Water Management, 2003

Table 5 – Industrial output of selected products (1998 – 2002)

Product	1998	1999	2000	2001	2002
Wheat flour^	298	297	276	299	299
Bread^	140	125	124	124	129
Pasta^	7	6	7	7	8
Fruit juice^	12	11	26	30	28
Canned vegetables^	23	17	16	17	27
Condiments^	25	23	17	16	19
Fresh meat^	91	87	91	100	105
Sausage products^	34	32	35	40	44
Canned meat^	16	17	13	12	15
Concentrated soups^	5	4	5	5	6
Baby food^	4	4	4	4	4
Butter^	2	2	2	3	3
Cheese^	19	18	21	23	22
Sugar^	139	114	57	131	172
Sweets and cocoa products^	20	20	20	22	24
Biscuits and related products^	23	23	22	25	27
Canned fish^	12	10	11	11	13
Edible oil^	41	38	35	40	41
Margarine^	15	16	16	16	18
Fresh yeast^	11	11	11	12	12
Refined alcohol 100%^^	7	12	13	9	11
Spirits*	241	208	177	163	151
Beer*	3,759	3,663	3,847	3,799	3,624
Wine*	577	426	472	501	435
Soft drinks*	1,919	1,576	1,471	1,657	1,949
Animal feed^	522	472	484	524	524
Fermented tobacco^	9	12	8	11	8
Cigarettes**	11,987	12,785	13,692	14,716	15,047

(^ ,000 tonnes; ^^ million litres ; * ,000 hl; ** million pieces)
Source: Croatian Chamber of Commerce, 2003

The main products of the food, beverages and tobacco industry in 1998 – 2002 are shown in Table 5. In terms of volume, in 2002 the main products of the food-processing industry were feeds, wheat, sugar, bread and fresh meat, while beer was the predominant beverage. From 1998 to 2002, output reductions affected six categories, signally condiments (-24%), wine (-25%) and spirits (-37%); reductions in bread, canned meat and beer production were less dramatic.

By contrast, the output of several products increased, particularly fresh meat and sausages, fruit juices and soft drinks, whereas sugar production underwent large fluctuations and a large overall increment. The production of cigarettes rose continuously and steeply (25%).

2.3. State support

Financial State support in agriculture is regulated by a law (O.G 87/02) that pursues two main objectives: boosting competitiveness and harmonization with EU legislation. It has introduced significant changes to the previous system, signally a distinction between commercial and non-commercial farms. The former are those farms that sell at least three production units. While non-commercial farms are assisted through direct income subsidies and measures for the protection of autochthonous breeds, the commercial farms benefit from a wider range of support mechanisms[11].

2.4. Distribution, prices and demand

Unfortunately, no detailed distribution information is available. These data would be very useful given that the distribution process is one of the crucial problems of Croatian agriculture.

In Croatia, the shift to a market-oriented economy has been accompanied by the concentration of distribution activities in the hands of a small number of commercial and processing operators, leading to a near-monopoly[12]. Wholesale functions poorly, and there are no produce auctions and cattle markets (Ministry of Agriculture, Forestry and Water Management, 2003).

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[11] A support policy has been introduced to encourage production of specific crops and livestock and particular production techniques. Since one its main aims is to improve the agricultural production structure and orient it towards products that can compete on foreign markets (olive trees, sugar-beet), agricultural productions receive the greatest support. The system also offers incentives for the development of intensive productions, with an emphasis on multiannual crops. Organic productions are also included. Measures in favour of disadvantaged areas (islands, mountain areas, and areas with unfavourable hydrological and soil characteristics) provide different and higher amounts to support production. Another form of support assists producer access to financing. Finally, a special policy for rural development is aimed at the development of country areas, protection of autochthonous breeds, and marketing of agricultural product preparations.

[12] Retail food products account for ca. 37% in non-specialized stores and bulk trade for 28% (2001). Intermediation turnover by product in 2001 shows that demand for food products is stagnating, mostly because of declining life standards and the grey economy (Ministry of Agriculture, Forestry and Water Management, 2003).

Data regarding prices are available only since 1995[13].

Until June 2003, when the Food Act[14] was passed (O.G. 117/03)[15], food quality and safety were not regulated. This law covers all aspects of food safety and security and hazard control[16].

Food and non-alcoholic beverages account for ca. 32% of household expenditure, followed by goods and services for household maintenance[17].

Table 6 – Value in Kunas of annual average consumption per household (2000 – 2002)

	2000	**2001**	**2002**
Total household expenditure	58,613	61,141	64,736
Food and non-alcoholic beverages	18,845	20,585	20,816
Food	17,263	18,826	19,049
Non-alcoholic beverages	1,582	1,759	1,767
Alcoholic beverages and tobacco	2,273	2,486	2,575
Alcoholic beverages	727	889	1,029
Tobacco	1,546	1,597	1,546

Source: Croatian Bureau of Statistics, 2003

2.5. Foreign trade

Over the last few years, GDP and the aggregate demand have increased. Since the production of agriculture and the food-processing industry does not meet the domestic demand for most products, the increase in demand has resulted in an increase in imports.

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13 Detailed and continuously updated data are available at http://www.tisup.hr.

14 Since the main objectives of Croatian agriculture are integration with EU agriculture and an increment of exports, the Food Act is in line with EU laws and directives, EU regulation 178/2002 and other relevant legislation.

15 However, the Food Act is only the first step towards improving food safety and security, and needs to be completed by specific legislation.

16 The Food Act envisages: general hygiene and health requirements for foodstuffs and animal feeds; hygiene and health requirement-related duties for subjects dealing with foodstuffs and animal feeds; general requirements concerning food quality; general requirements for protection of geographic indication and designation of origin, as well as indications of origin and traditional renown of food products; general requirements concerning labels and indications on foodstuffs and animal feeds; general conditions for placement of foodstuffs and animal feeds on the market; general conditions for placement of new food products on the market, general conditions for placement of food and animal feed products made with or containing GMOs; a system of official controls for foodstuffs and animal feeds, a system of authorized laboratories; the management of critical and urgent cases, rights and duties of competent bodies over foodstuffs and animal feeds produced in Croatia or imported and sold on the Croatian market. The Food Act also provides for the establishment of a Food Agency, which is currently based at Osijek. The agency is charged with food surveillance along the distribution chain and, in collaboration with all competent institutions, the safety and security control on food products sold on the Croatian market.

17 A study of the calorie content of food consumed in households in 2002 showed that the main calorie sources are cereals, oils and fats, and meat and meat preparations. With reference to cereal products, bread and bakery products (65.50 kg) are followed at a great distance by flour and other cereals (21.69 kg). As regards meat and meat products, poultry (19.26 kg), pork (14.66 kg) and dried, smoked and salted meat (13.30 kg) are the most widely consumed. Milk consumption is at 91.95 litres and egg consumption at 10.72 kg per household. Apples are the most widely consumed fruit (14.00 kg). Frozen vegetables have a small share, while the largest quantities of consumed vegetables are those grown for their fruit (19.32 kg) and potatoes (44.37 kg).

At the same time Croatia's WTO membership since 2000, its approach to the EU and numerous bilateral free trade agreements have opened new markets for its products as well as its internal market to foreign producers[18]. Two different trends can be noted (table 1.7). Imports fluctuated widely from 1995 to 1999 but overall tended to diminish, whereas exports of agricultural produce declined continuously. From 1999, imports and exports of agricultural products both rose, increasing the role of agriculture in the trade balance. Their value and proportion of total trade are shown in Table 7.

Table 7 – Value in Kunas of annual average consumption per household (2000 – 2002)

Years	**Imports (000 kunas)**	**Imports as a proportion of total trade**	**Export (000 kunas)**	**Exports as a proportion of total trade**
1995	529,426	11.4%	952,408	12.7%
1996	547,280	12.1%	946,048	12.1%
1997	552,200	9.8%	1,020,507	11.3%
1998	536,087	11.8%	864,207	10.3%
1999	431,141	10.0%	706,234	9.1%
2000	422,875	9.5%	710,393	9.0%
2001	486,681	10.4%	870,419	9.5%
2002	579,547	11.8%	1,035,255	9.6%

Source: Ministry of Agriculture, Forestry and Water Management, 2003

The main Croatian food exports are shown in Table 8.

Table 8 – Main food exports, 2002

Product	Value of exports (m $)
Cigarettes	90.1
Sugar (refined)	39.8
Tuna, fresh or chilled	36.8
Vegeta (condiment)	28.5
Wheat	21.1
Biscuits	17.6
Maize	16.9
Chocolate	16.3
Canned sardines and sprat	13.5
Soups	13.0

Source: Ministry of Agriculture, Forestry and Water Management, 2003

The product whose exports have risen most over the last years is sugar, which has become the main export of the agricultural sector to EU markets since exports were liberalized. Among imports, cheese imports have risen steeply[19] (Table 9).

[18] In particular, since January 2001 Croatia has been exporting to the EU several products (with the exception of wine, baby beef products and some fish and canned fish products) free of tariff. Croatia has agreed to apply tax benefits to a number of EU agricultural and food products. Trade liberalization has increased both exports and imports.

[19] Large imports of some cheese types hit Croatian producers hard; for EU Gouda cheese the 2002 – 2002 import index reached 1 888.8.

Table 9 – Main food imports, 2002

Product	Value of imports (m $)
Beef cattle	49.2
Soybean	31.4
Frozen pork	30.1
Bananas	21.0
Cheese, hard and semi-hard	19.4
Coffee, not roasted	19.1
Fresh marine fish	18.3
Soybean cake	18.2
Pet food	17.6
Feeds	17.2

Source: Ministry of Agriculture, Forestry and Water Management, 2003

The trade liberalization agreements have changed the main commercial partners of Croatia, with 80% of foreign trade now being with free-trade areas. The EU and former Yugoslav countries (in particular of Bosnia and Herzegovina) are the most important partners. Italy and Slovenia are the main EU markets.

As regards Croatian imports, most are from the EU (45%), mainly Italy, Germany and Austria, followed at some distance by Hungary, Brazil and Slovenia.

2.6. Organic agriculture in Croatia

2.6.1. Introduction

Croatia's earliest organic farming initiatives date to the early 1980s, when some pioneers of organic farming – associations like BIOS and individuals like Prof. Jan Čižek – started to promote and practise this alternative type of farming (Kisic, 2003). Development has been faster in the last few years, particularly since the introduction of the Organic Production of Agricultural and Food Products Act (O.G.12/01)[20], which is in line with EU organic farming regulations (2092/91) as well as with IFOAM principles. It defines organic farming as follows:

"Organic (ecological) agriculture is a special system of sustainable management in agriculture and forestry. It comprises plant growing and animal rearing, production of food, raw materials and natural fibres, as well as processing of primary products, and includes any organically, commercially and socially justified technological methods, operations and systems, by

[20] The growth of organic farming is one of the main objectives of Croatian agriculture, as reflected in various programmes and strategies: the Croatian National Strategy (1999), the Strategy and Action Plan for the Protection of Biological and Landscape Diversity (2002), the Programme for Sustainable Development of Rural Areas, the 2002 National Agriculture & Fisheries Strategy, the 2004 National and Pilot Agri-Environmental Programme, all aim at the sustainable development of agriculture with organic farming as the main pillar. Particularly ambitious objectives, like 10% of agricultural land (arable and pastures) to be certified as organic within 10 years, have been set by the Rural Development Strategy (2003). (Workshop on National Strategy on Organic Agriculture in Croatia, Draft, October 2004, results, Draft).

using in the most convenient ways soil fertility and available water resources, the natural properties of plants, animals and the landscape, increasing the yield and resistance of plants by means of natural forces and laws, combined with appropriate use of fertilizers and agents for the protection of plants and animals, in accordance with internationally adopted standards and principles”,

This act, which represents an essential condition for the strategic development of organic farming, created a legal framework and reference point for all Croatian stakeholders in the organic system. Subsequently, provisions for its concrete application were adopted in 10 ordinances regulating different aspects of the organic farming chain. These ordinances contain provisions regarding the adoption of:

- a directive concerning the refund of expenses for inspection services and the assessment of compliance with the basic rules of organic production (O.G. 101/03, O.G. 85/02)
- regulations for organic production of plants and plant products (O.G. 91/01)
- regulations for a system of evaluation of compliance with the basic rules of organic production (O.G. 91/01)
- regulations on procedures and conditions to obtain the Eko logo (O.G. 13/02)
- regulations on processing in organic production (O.G. 13/02)
- regulations on organic production of animal products (O.G. 13/02)
- regulations on organic product labels (O.G. 13/02)
- regulations on the conditions and modes of enrolment in organic producer registers (O.G. 13/02)
- regulations on professional inspection services of organic productions (O.G. 13/02)
- regulations on organic fibre processing (O.G. 81/02).

The responsible Ministry is the Ministry of Agriculture, Forestry and Water Management, sector of sustainable development of country areas.

2.6.2. Organic production

Since the State Bureau of Statistics still does not distinguish between conventional and organic goods in its registers, official data on organic farming are scarce. The only available data originate from registers of the Ministry of Agriculture, Forestry and Water Management on producers, importers, inspection bodies and authorized laboratories[21].

[21] As envisaged by organic production legislation, producers, importers, inspection bodies and authorized laboratories are entered into registers held by the competent Ministry.

The organic producers entered in these registers are reported by County in Table 10.

Table 10 – Organic producers by County

County	No. of producers
City of Zagreb	5
County of Zagreb	13
County of Vukovar-Sirmium	9
County of Osijek-Baranja	39
County of Pozega-Slavonia	3
County of Medimurje	6
County of Varazdin	4
County of Koprivnica-Krizevi	5
County of Slavonski Brod-Posavina	3
County of Krapina-Zagorje	2
County of Bjelovar-Bilogora	28
County of Karlovac	3
County of Lika-Senj	1
County of Virovitica-Podravina	6
County of Sisak-Moslavina	2
County of Istria	2
County of Split-Dalmatia	4
County of Zadar	8
County of Sibenik-Knin	9
County of Primorje-Gorski Kotar	1
County of Dubrovnik-Neretva	0

Source: Ministry of Agriculture, Forestry and Water Management, 2004

As of May 2004, 153 organic producers were registered. Considering that they were 130 at the end of 2003, their numbers have risen by almost 20% in five months. These data also evidence that the distribution of organic farms is very uneven; the concentration of more than 80% of producers in the North-East is in line with the general characteristics of Croatian agriculture[22]. Furthermore, two Counties –Osijek-Baranja and Bjelovar- Bilogora – account for more than 40% of producers. They are followed by the County and City of Zagreb, considered as a single production area, which hosts 12% of producers. By contrast, organic producers are few in coastal areas, with the sole exception of the Counties of Zadar and Sibenik-Knin. Dubrovnik-Neretva is the only County where no organic producers are registered (Table 11).

By the end of 2003, about 2,500 ha were under the inspection regime, with 22% (526 ha) having Eko status and 78% (around 1,000 ha) being converted to organic farming.

[22] For a complete list of Croatian organic producers see Appendix 1

Table 11 – Land managed with organic methods or undergoing conversion to organic farming by County in ha, 2004

County	Register data (ha)	Surface (ha)	Being converted	Eko status
City of Zagreb	62.42	62.42	51.24	5.51
County of Zagreb	42.5	42.33	14.75	14.85
Vukovar-Sirmium	32.62	32.62	25.4	7.22
Osijek-Baranja	1,545.39	1,545.39	1,473.29	55.81
Pozega-Slavonia	318.52	318.52	102.91	215.61
Medimurje	5.31	5.31	2.81	2.5
Varazdin	30.99	31.99	27.12	4.87
Koprivnica-Krizevi	13.94	7.44	2.1	
Slavonski Brod-Posavina	12.67	15.7	6.37	
Krapina-Zagorje	8.26	3.64		
Bjelovar-Bilogora	222.19	216.36	11.58	168.5
Karlovac	1.1	1.01	0.8	0.21
Lika-Senj	29.7	29.7	29.7	
Virovitica-Podravina	6.97	6.97	2.95	4.03
Sisak-Moslavina	3.48	3.48		
Istria	4.3	4.3	4.3	
Split-Dalmatia	41.39	41.39	33.21	8.1
Zadar	47.09	45.51	10.51	35
Sibenik-Knin	7.65	10.09	10.09	
Primorje-Gorski kotar	0.93	0.93		0.93
Dubrovnik-Neretva	0	0	0	0
Total	3,503.32	2,425	1,809	526

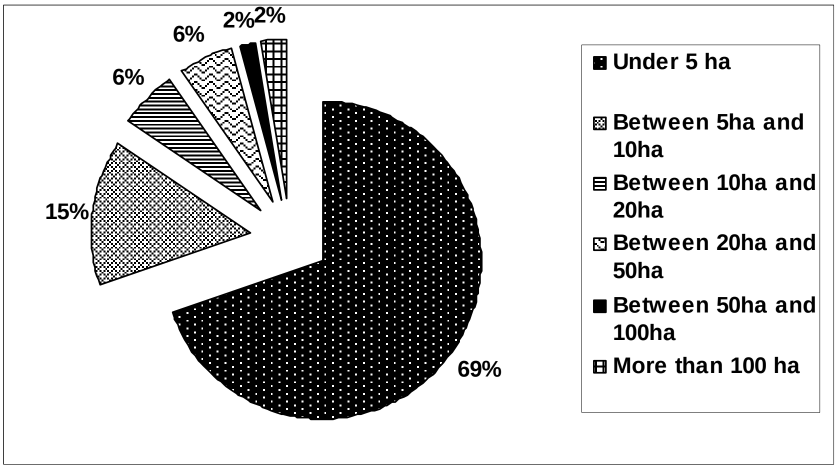
N.B. The surfaces reported in the Register represent agricultural/cultivated land as well as land used for animal production and surface devoted to aquaculture. For this reason, the values reported under "Register data" and those reported under the other columns do not correspond.
Source: Ministry of Agriculture, Forestry and Water Management, December 2003

If the land farmed organically and that undergoing conversion are summed, the County of Osijek–Baranja alone accounts for 63% of the land devoted to organic farming. Pozega–Slavonia is a distant second (13%), while Bjelovar–Bilogora accounts for only 9%[23].

If the land undergoing conversion and the surface certified as organic are summed, the majority of organic farms are small or very small (Diagram 3). Indeed, almost 70% farm less than 5 ha, and 46% of these less than 1 ha. These farms are followed by those managing 5 to 10 ha, but in almost 50% of cases the surface is closer to 5 ha than 10 ha. Larger farms are few; those exceeding 50 or 100 ha are only 3, two of which farm 100 to 300 ha and one almost 1,300 ha.

[23] According to the most recent data of the Ministry of Agriculture, Forestry and Water Management, the land with registered Eko status, i.e. certified as farming organically, already covered 1,127 ha by mid 2004.

Diagram 3 – Dimensions of organic farms, 2003



Source: our elaboration data of Ministry of Agriculture, Forestry and Water Management, December 2003

As regards their legal structure, most are family farms (82%), the rest being companies[24].

Unfortunately, there are no data on production quantities, as the only available data regard the surface devoted to different crops and the volume of animal production.

With regard to land destination in 2004, Ministry of Agriculture, Forestry and Water Management data show that apples account for the largest proportion of the fruit grown organically. Data are sometimes expressed using two measures (i.e. plants and hectares), so that the organic apple produce is quantified as 567 trees and 10 ha, plums as 308 trees and 4 ha, and pears as 165 trees and 1 ha. Vineyards account for ca. 3.5 ha. Strawberry and blackberry cultures cover together approximately 3 ha.

Of the numerous vegetables productions, which however cover a limited surface, the principal ones are peppers (ca. 7 ha), clover (56.67 ha), Lucerne (almost 63 ha) and peas (around 12 ha). Potatoes, garlic and carrots account together for about 3 ha. The category of "mixed green vegetables" covers around 10 ha.

The largest surfaces are devoted to wheat (more than 550 ha), soybean (398 ha), maize (almost 200 ha), sugar-beet (121 ha), barley and oats (more than 50 ha each), if both organic and in-conversion land is included.

Herbs are also grown extensively (more than 40 ha), especially chamomile.

With reference to animal production (Table 12), fattened chickens are by far the largest item (with a high concentration in the County of Zagreb), followed by fattened young bulls (almost exclusively in Osijek-Baranja). Production of sheep, chickens, goats and young goats, as well as of pigs, is far lower.

[24] It is interesting to note that not only large producers, but also some small and very small farms are companies.

Farms producing organic fish (101 tonnes in 2003), mussels (5000 pieces) and honeybees (50 hives) are also registered.

Table 12 – Organic livestock farming, 2003

Animals	Number
Cows	66
Calves, 3 months	15
Young bulls 1 year	13
Young bulls 1-2 years	9
Young bulls 2-3 years	14
Fattened young bulls	1,506
Bulls	1
Horses	46
Foals	6
Ponies	4
Breeding cows	47
Pigs	478
Breeding sows	17
Goats	455
Young goats	205
Sheep	726
Lambs	95
Chickens	290
Layers	129
Fattened chickens	5674
Ducks	72
Turkeys	32
Geese	10
Rabbits	62

Source: Ministry of Agriculture, Forestry and Water Management, December 2003

72% of producers are surveyed and inspected by BIOPA, 26% by PEZ (Prva Ekoloska Zadruga) and 2% by Hrvatske Sume. Croatian Eko logo producers and products as of December 2003 are reported in Table 13. The Eko logo was awarded to 28 producers (or 21% of all producers registered in 2003) and 33 products. The majority of products bearing the logo are vegetables and derived products, followed by wheat, soybean, chickens, cereals and cereals-derived products. In October 2004, the time of the latest update, producers awarded the Eko logo had risen to 43 (Workshop on National Strategy on Organic Agriculture in Croatia, Draft version, October 2004, results, Draft version).

Table 13 – Producers and products certified with the Croatian Eko logo, 2003

Producers	Products
IVKA SEVER	Cereals, vegetables, chickens, eggs
“BUTIĆ”, production, trade and services, d,o,o,	Chickens
“EKO IMANJE MAVROVIĆ” d,o,o,	Cereals-derived products
POLJOPRIVREDNO-TURISTIČKOG OBRTA, "BIOPHARM" of Željko Krpan	Products derived from cereals and medical herbs
BRANKO ČEGEC	Wine
MARICA MARJANOVIĆ	Soybean
GREKČEVIĆ IMBRO	Chickens
JOSIP BREZICKI	Chickens
MARICA JUG	Apples
HELENA GREBENC	Lambs
"ŠMIT"uzgoj koza - NIKOLA LONČAR	Young goats
BAČMAGA FRANJO	Soybean
MILAN PASTUOVIĆ	Honey
«ADNOVAS OBRT»	Wheat, maize
MATE KLARIĆ	Vegetables
NIKOLA RAPO	Vegetables
KRPINA IVAN	Vegetables
TEREZIJA BAŠIĆ	Vegetables
MIRKO TRBONJAČA	Vegetables
TOMISLAV PORTADA	Vegetables
MIRKO GNJIDIĆ	Vegetables
VASILJ BOJANIĆ	Vegetables
MILENKO ŠAPONJA	Vegetables
SLAVENKO MATIĆ	Vegetables
STJEPAN GUMBAS	Wheat, soybean
STANKO GRADIŠČANAC	Wheat
ZLATA NANIĆ	Vegetables, Vegetables-derived products
RATKO SUMAN	Maize, Apples
“REPRO STUDIO”	Cereals-derived products

Source: Ministry of Agriculture, Forestry and Water Management, December 2003

There are no official figures on prices, distribution channels and exports of Croatian organic produce. The sole official data are those from the Importers Register, held by the Ministry, according to which there are nine registered importers.

There are no figures for exports of Croatian organic food. However, according to Ministry sources, large amounts of uncertified organic produce are exported and certified on foreign markets (Workshop on National Strategy on Organic Agriculture in Croatia, results, Draft version, October 2004).

Table 14 – Organic product importers, 2003

Name	Address	Date of registration	Extension body
“CANDOR” d.o.o.	A. Šenoe 89, 31550 Valpovo	24/10/2003	BIOPA
“SJEMENARNA” d.o.o.- Zagreba	Trg kralja Tomislava 19, 10000 Zagreb	3/6/2003	BIOPA
“ENCIAN” d.o.o.	Gospodarska bb, Donji Stupnik	3/6/2003	BIOPA
VIVERA d.o.o.	Ulica kralja Zvonimira bb, 44400 Glina	24/10/2003	PEZ
dm-drogerie market d.o.o.	Baštijanova 52/a, 10000 Zagreb	24/10/2003	PEZ
KRESTO d.o.o.	Nikole Tesle 6, 40000 Čakovec	24/10/2003	BIOPA
ADVENT d.o.o.	Šijanska cesta 5, 52100 Pula	24/10/2003	PEZ
BIO-PARTNER d.o.o.	Ulica Frana Galovića 26/c, 48000 Koprivnica	24/10/2003	BIOPA
FRIVA AB-GALEB trgovina i usluge d.o.o.	Kaptol 7, 10000 Zagreb	24/10/2003	PEZ

Source: Ministry of Agriculture, Forestry and Water Management, Importer Register, December 2003

2.6.3. Subsidies

The first law envisaging subsidies for organic agriculture is O.G. 87/02, which regulates separately four categories: i) cultures; ii) seeding material, multiannual cultures (vines, fruit-gardens, olive trees, lavender) hop and olive oil; iii) livestock and animal products; iv) fisheries.

The beneficiaries of financial subsidies are farms entered in the Organic Producer Register with certification of compliance with the organic production rules by the appropriate bodies. Subsidies for farming, animal breeding and aquaculture are paid yearly and are different according to product and production categories. For farm crops they are 3,000 Kunas/ha.

With reference to organic stock breeding and milk production, the incentives are 30% higher than for conventional products. Some productions receive subsidies only if they are organic.

The following table reports the amount of subsidies for the different productions.

Table 2.6. –Value of subsidies for organic farming, 2003

Product	Unit	Amount (Kunas25/unit)
Agricultural cultures	ha	3,000
Seeding material, multiannual cultures, Olive oil	ha	3,000
Olive trees	Tree	20.8
Olive oil	Litre	5.2
Pasture grounds and meadows	ha/head	130
Cow milk	Litre	0.85 (1.35*)
Milk (sheep, goats)	Litre	1.30 (1.75*)
Fattened young bulls	Head	1,040 (1,400*)
Fattened pigs	Head	130
Fattened lambs and young goats	Head	30
Fattened poultry	Head	20
Milk cows	Head	1,040 (1,400*)
Cow herds	Head	2,630
Sheep, rams, goats and he-goats	Head	260
Poultry	Head	20
Swine	Head	390
Horses	Head	1.750
Honeybees	Beehive	115
Autochthonous demersal species	kg	7.0
Mussels	kg	1.04
Oysters	Piece	0.65
Fish juveniles	Piece	0.33
Freshwater fish – group I	kg	4.55
Freshwater fish – group II	kg	6.25

Source: Ministry of Agriculture, Forestry and Water Management, 2004 Reform
* Disadvantaged areas

The aim of subsidies is to support the development and expansion of organic agriculture and to improve the structure of the organic supply. Despite this substantial State intervention, no specific measures have been introduced to address the special needs of organic as opposed to conventional production. The policy provisions are the same for both sectors, with the sole difference that the amounts are greater for organic farming.

2.6.4. Labels of organic food, certification process and labelling

Organic products must bear a label to allow consumers to distinguish them from conventional products. These statements must provide detailed information on product, producer / importer, date of production, place of origin, ingredients, net weight, name of the certification body, certificate number and the indication “organic (eco) product” or “produced on land being converted to organic production”.

[25] The average annual exchange rate in 2002 was 1 Kuna to 7.863712 $, Hrvatska Narodna Banka, Godisnji i mjseceni devizni tecajevi, HNB, 2004.

Products from areas being converted to organic production (a period of 1 to 3 years that may exceptionally last 5) may be called “organic” only if at least 70% of the final product is organic, or the product is accompanied by a guarantee that it is produced on land being converted.

The certification process to obtain the Eko logo is quite complex (Krstulovic, S, Dalmacija, 2004). After collecting information on the rules governing organic farming (Organic farming Act and related ordinances), producers contact a certification body – Agribiocert, Zavod za ispitivanje kvalitete robe, Biotechnicon, Hrvatske sume, Biopa, Prva ekoloska zadruga – authorized by the Ministry of Agriculture, Forestry and Water Management) for the surveillance and inspection of organic practices. The next step is an application to be entered into the Register of organic producers of agricultural and food products. The application must be accompanied by the following documents:

- a statement by the inspection body that the first inspection has been carried out,
- the producer’s registration as a juridical subject, or a certificate by the competent authority to the effect that the producer is a registered agricultural producer,
- an extract from the land book and/or the rent contract showing that the lease is guaranteed for at least 5 years, as well as an ownership certificate or attestation of the right of land use,
- the cadastral plan reporting the parcels assigned to the production unit and their surface,
- a list and indication of dimension of the structures, mechanization and other production tools,
- a declaration by the legal person or the producer that they are aware of organic farming rules,
- if the farm is administered by a director of production, a document stating the exact nature of this business relationship,
- a government stamp (70.00 Kunas).

The producer must keep a book describing the production process and reporting all relevant operations, to enable the auditors to check the origin, nature and quantities of all inputs, because all phases of production are subject to control. The result of the inspections must be communicated to the Ministry and the legal persons responsible for the certification process (AgriBioCert or Biopa).

The final certificate, issued by one of the two bodies authorized for the certification process, states the producer’s compliance with organic practices (inspected and guaranteed).

This document reports:

- the name of the legal person who granted it, number of declaration and its protected logo,
- the certificate number,

- the name of the farm and its registration number in the organic producer register,
- the name of the producer and the quantities for which the certificate has been granted,
- the regulation under which the certificate has been granted,
- the time period for which the certificate has been granted,
- the place and date of the award of certification with the signature of the responsible person.

The certificate guaranteeing compliance with organic farming rules is awarded based on the inspection reports and the documentation of the authorized laboratory (Croatiakontrola).

The final step is a written application for the granting of the Eko logo to the Ministry[26] reporting:

- the producer's name and address,
- the registration number in the organic producer register,
- the name of the product for which the logo is being requested,
- the certification granted by the authorized body,
- the amount of production and/or number of products to be sold on the market,
- the number and dimension of packs.

A Ministry-appointed working group is charged with evaluating the applications and, if all requirements are met, it awards the Eko logo (Figure 1) for 12 months and communicates the conditions for its use.

Figure 1 – The Croatian Eko logo

2.7. Protected geographic indication and designation of origin of food products

2.7.1. Introduction

The protection of designation of origin, geographic indication and traditional specialty of food articles is one of the main tools that should permit Croatian food products to achieve greater

[26] One of the main problems is that the Ministry is directly involved in the control and certification process, including the final authorization to use the official organic logo.

visibility and competitiveness both on domestic and international markets and to add value to special-quality food products while at the same time permitting the diversification of production.

2.7.2. Legal framework

An overview of the regulations on these products and of responsible bodies is first in order.

The protection of geographic indications of goods and services was until recently the competence of the State intellectual property office and was regulated by the Indications of Geographic Origin of Goods and Services Act (O.G. 78/99, 127/99) and related provisions (O.G. 146/99)[27]. Under this law, only eight Croatian products, seven of them food, protected their geographic indication[28].

Table 15 – Food products with protected designation of origin, 2004

Name of product and designation	Product	Geographic area of origin	Register number
Dingac (PGI)	wine	Peljesac peninsula	G9300001
Slavonian domestic kulen/kulin (PGI)	kulen sausage	Slavonia	G9990001
Old Slavonian plum-brandy or Slavonska (PGI)	plum brandy	Slavonia	G9990002
Cheese from the Island of Pag (PGI)	sheep milk cheese	Pag Island	G9990003
Istrian ham (PGI)	meat derivative	larger central Istrian area	G20020002
Biscuit from Pag (PGI)	biscuit	City of Pag	G20030001
Cheese from Cetina (PGI)	cheese	area of Cetina	G20030003
Ham from Drnis (PDGI)	meat derivative	City of Drnis and surrounding area	G20030004

Source: State intellectual property office, July 2004

Since 2003, this sector is regulated by the Food Act (O.G.117/03), which has harmonized Croatian with EU legislation and prescribes all the hygienic and other quality standards that producers, distributors and food-processing plants are required to observe, including the conditions for the application for protected designation of origin status (PDO, PGI, TSG). Among other provisions, the new law has changed the definitions of PGI, PDO and TSG, and has attributed all competence to the Ministry of Agriculture, Forestry and Water Management.

According to the new law, the PGI indication:

- can regard the name of the region, specific place or, exceptionally, Country used on the food items originating from that region, place or Country i) whose quality and other characteristics

[27] Superseded by the Food Act, see below.

[28] Unlike EU regulations, the 1999 law included wine and spirits among the products allowed to apply for the PDO, PGI, and TSG marks, one of the very few Croatian PGI products being wine. The current provisions regarding wine are found in N.N. 07/05.

are largely or entirely due to particular natural and human conditions of that specific geographic area, and ii) whose production, processing and preparation are wholly accomplished in that area;

- geographic indications that have a demonstrated traditional characteristic, exceptional renown and are well known may be protected with the PGI even though the raw materials originate from an area that is broader or different from the area where processing takes place, provided that the area of production is circumscribed and specific conditions for the production of raw materials in that area obtain. Such raw materials are only livestock, meat and milk.

The food products that can bear the PGI indication, the geographic areas mentioned, and the inspection methods are to be determined by the competent Ministry.

The PDO indication concerns:

the name of the region, specific place or, in exceptional cases, Country that is used on food i) originating from that region, place or Country, ii) whose specific quality characteristics, repute or other peculiarities are ascribed to its geographic origin, and iii) whose production and/or processing, and/or preparation take place in that specific geographic area.

The food products that can bear the PDO indication, the geographic areas, and the appropriate inspection methods are to be determined by the competent Ministry.

The TSG indication used on food products originating from particular regions or places can be registered as PGI if the product characteristics meet all the required conditions. Applications may be submitted by groups (i.e. any association) of producers and/or processors. Applicants may be single producers and/or processors provided that:

- at the time of application they produce and/or process only that specific product,
- they use the original, unmodified local methods/practices,
- the geographic area has important characteristics that distinguish it from other areas and/or the characteristics of the product are substantially different.

Applicants must be registered in the Ministry's PGI and/or PDO books. The right to use the three indications follows enrolment in these books.

Even though the Food Act clearly defines the food product designations and assigns the competence for their attribution to the Ministry of Agriculture, Forestry and Water Management, the detailed regulations envisaged by the law, to be issued in the three years from its introduction, have not yet been adopted, and have prevented the implementation of the whole system.

The transition of competences should have been managed by an interinstitution agreement authorizing the intellectual property office to accept new enrolments and guarantee the protection of the interests of those already registered until the completion of the system.

In the meantime, the new Indications of Geographic Origin of Goods and Services Act (O.G. 173/03) and relevant regulations (O.G. 72/04) have been adopted. This discipline no longer regulates those products and services whose protection of geographic indication and designation of origin are regulated by specific laws, as is the case of the food products regulated by the Food Act. It also provides that the State intellectual property office continue to be responsible only for the applications that were filed before the new law and have not yet been processed. The books with the names of products with protected designation of origin or geographic indication are to pass to the competent bodies, which for food products is the Ministry of Agriculture, Forestry and Water Management where, at present, no services are qualified for the protection of geographic indications and designation of origin.

2.7.3. Other labels

Since 1997, the Croatian Chamber of Commerce also supports the promotion and labelling of high-quality Croatian products with the objective to help consumers to identify them more easily and distinguish them from the rest of Croatian and international products.

The rules governing the award of these labels differ greatly from those regulating the PDO, PGI and TSG status, and are in line neither with the Croatian nor the EU legislation. The marks are “Croatian Quality” (Hrvatska kvaliteta) and “Croatian Creation” (Izvorno hrvatsko), which concern the origin or characteristics of products and make reference to the entire Country rather than specific regions or areas.

The “Croatian quality” label is granted to products whose characteristics (e.g. contents, design, ergonomic criteria, and ecological criteria) meet high international standards. These products must comply with all food safety, security, environmental protection and protection of consumer’s rights regulations. The products bearing this label present overall characteristics that can satisfy all expressed or supposed needs of users or other needs that result from specific rules and specifications guaranteeing their above-average quality.

The “Croatian creation” label is awarded to authentic Croatian products whose quality is higher than the average quality of similar products. Their quality has to be at least as high as that of “Croatian quality” products, but they are also required to possess unique characteristics that result from Croatian tradition, research work and Croatian invention and/or innovation[29].

Table 16 - Products bearing the “Croatian quality” label

Product name	Category	Producers
Jamnica mineral natural water	Water	Jamnica d.d., Zagreb
AB kultura	Milk-derivatives	Lura d.d,. Zagreb
Cedevita	Vitamin supplements	Cedevita d.o.o. Zagreb
Jubilarna kava	Coffee	Franck d.d. Zagreb
Cipi Cips - line of products	Savoury biscuits	Franck d.d. Zagreb
Espresso kava	Coffee	Franck d.d. Zagreb
Meso kunica	Hare meat	Kunis d.d., Bosnjaci
Sjeme secerne repe	Sugar -beet seed	Institut za secernu repu d.d., Osjek
Rally bezalkoholno pivo	Alcohol-free beer	Karlovacka pivovara d.d. Karlovac
Karlovacko svijetlo pivo	Light beer	Karlovacka pivovara d.d. Karlovac
Griotte dessert	Sweets	Kras d.d. Zagreb
Sardi riblje konzerve	Canned fish	Sardina d.d. Postira
Sjeme hibridnog kukuruza	Hybrid maize seed	Bc Institut za oplemenjivanje i proizvodnju bilja d.d. Zagreb
Dimsi	Cheese	Lura d.d. Zagreb
Ribani parmezan	Cheese	Lura d.d. Zagreb
Podravec	Cheese	Lura d.d. Zagreb
Barun - gorki biljni liker	Spirit	Zvecevo d.d. Pozega
Clementina desert	Sweets	Zvecevo d.d. Pozega
Mikado - milk chocolate with rice	Sweets	Zvecevo d.d. Pozega
Rajnski rizling	Spirit	Kutjevacki podrum d.d. Kutjevo
Grasevina	Wine	Kutjevacki podrum d.d. Kutjevo
Traminac	Wine	Ilocki podrumi d.d. Ilok
Margo (vita nova,classic fit, margo s jogurtom)	Milk derivatives	Zvijezda d.d. Zagreb
Zvijezda stolni margarin	Margarine	Zvijezda d.d. Zagreb
Ogulinski kiseli kupus	Vegetable (sauerkraut)	Medig d.d. Ogulin
Zvijezda majoneza od svjezih jaja	Mayonnaise	Zvijezda d.d. Zagreb
Dalmatinska panceta	Sausage (bacon)	Mesna industrija Braca Pivac d.o.o. Vrgorac
Stisnjenja sunka u ovitku	Sausage (ham)	Sljeme d,d,, Sesvete
Krumpir (potatoe)	Vegetable	Lipovac d.d. Lipovac
Luk (garlic)	Vegetable	Lipovac d.d. Lipovac
Mrkva (carot)	Vegetable	Lipovac d.d. Lipovac
Mesni dorucak	Canned meat	Gavrilovic d.o.o. Petrinja
Jetrena pasteta	Canned meat	Gavrilovic d.o.o. Petrinja
Piknik keksi	Biscuits	Koestlin d.d. Bjelovar
Paris-punjeno cajno pecivo	Biscuits	Koestlin d.d. Bjelovar
Cajna pasteta-trajna konzerva	Canned meat	Sljeme d.d. Sesvete
Cajna pasteta u ovitku	Canned meat	Sljeme d.d. Sesvete
Dalmatinska budola "Matas"	Sausage (loin)	Matas – M.N. d.o.o. Jasenice - Obrovac
Delikates sunka bez kosti	sausage (ham)	Mesnice Fiolic d.o.o. Zagreb

[29] The “Croatian quality” and “Croatian creation” marks are registered in the book of the State intellectual property office as collective marks. The labelling process consists of: *i)* an advisory commission; *ii)* a Centre for quality improvement; *iii)* Technical committees for individual groups of products or single products. The applications and documentation are submitted to the Centre for quality improvement for examination of the documents and are passed to the technical commission, which analyses the products characteristics. The right to use the marks is granted for 3 years through a contract between the Chamber of Commerce and producers.

Unlike PGI products, “Croatian quality” and “Croatian creation” products bear clear logos which, together with consistent promotion campaigns by the Chamber of Commerce, guarantee great visibility to the products bearing them.

This initiative has had a considerable impact on the agri-food industry, since 56% of “Croatian quality” and 47% of “Croatian creation” marks have been issued for food products.

Table 17 - Food products bearing the “Croatian creation” label

Product/s	**Category**	**Producers**
Bajadera	Chocolate	Kras d.d. Zagreb
Vegeta	Condiments	Podravka d.d. Koprivnica
Stara sljivovica	Spirits	Badel 1862 d.d. Zagreb
Mlijecni namaz	Milk derivative	Lura d.d. Zagreb
Paprenjak-tradicionalni hrvatski kolac	Sweets	Paprenjak d.o.o. Zagreb
Amarena-vocni sirup	Soft drinks	Marasak d.d. Zadar
Vinjak "Trenk"	Spirits	Zvecevo d.d. Pozega
Izvorni posedarski dalmatinski prsut	Sausages (ham)	Prsutana d.o.o. Posedarje
Paski sir	Cheese	Sirena-Mala sirana d.o.o. Kolan. Pag
Dalmatinski sokol	Sausages	Prsutana d.o.o. Posedarje
Rolana mesnata slanina	Sausages	Sljeme d.d. Sesvete
Pekmez od sljiva-zasladeni	Jam	Podravka d.d. Koprivnica
Gavriloviceva salama	Salami	Gavrilovic d.o.o. Petrinja
Gavrilovicev kulen	Sausages (kulen)	Gavrilovic d.o.o. Petrinja
Domaci prsut - dalmatiko	Sausages (domestic ham)	Prsut Vostane d.o.o. Trilj
Dalmatinski prsut "Matas" (Dalmatian ham)	Sausages (dalmatian ham)	Matas - M. n. d.o.o. jasenice - Obrovac
Svjeze svinjsko meso	Fresh pork meat	Mesnice Fiolic d.o.o. Zagreb

Part two

3. RESULTS OF THE FIELDWORK

3.1. Introduction

The general aim of this study was to evaluate the market situation of Croatian organic and special-quality food products with a view to devising marketing approaches and strategies to improve their performance. Given the scarcity of official data, the field study assumed considerable importance. This had three objectives: to better characterize the demand for Croatian organic and special-quality food products by Croatian consumers and tourists; to establish the degree of knowledge of Croatian PDO- and PGI-label products by Croatian consumers; and to characterize the supply and demand for organic and special-quality products by obtaining information from producers, distributors and retailers.

3.2. Sample description

As mentioned above, the samples of 200 Croatian consumers and 200 tourists were defined using criteria that included place of residence, job and family composition. To achieve this number, 214 interviews with Croatian consumers and 255 interviews with tourist were carried out.

Table 18 – Sample composition: Croatian consumers

Gender	36% male, 64% female
Age	50% from 25 to 45 years; 50% from 46 to 65 years
Place of residence	25% Split, 25% Zagreb, 25% Rijeka, 25% Dubrovnik
Job of interviewee	29% self-employed professionals, 40% office workers/teachers, 3% traders/retailers, 5% unemployed, 6% housewives, 4% students, 13% other
Job of the head of the family	40% self-employed professionals, 40% office workers/teachers, 5% traders/retailers, 15% other
Family composition	30% unmarried; 24% with children < 10 yrs; 34% with children > 10 yrs; 26% other adult family members
Level of education	2% primary school/no education, 54% secondary school, 42% university degree, 1% Master/Ph.D

Since only consumers responsible for their family purchases were interviewed, the Croatian sample (Table 18) was mostly made up of women. The age composition criteria were strictly enforced (50% of the sample was aged 25 to 45 years and 50% was aged 46 to 65 years). The same proportion of interviewees (25%) lived in Zagreb, Split, Rijeka and Dubrovnik.

The majority of interviewees were office workers/teachers (40%), followed by self-employed professionals (29%); there was a reasonable proportion of most representative categories, such as traders, housewives, students, and unemployed people; “other” interviewees were mostly pensioners. There were equal proportions of office workers and professionals among family heads: 5% were traders or retailers, and 15% were “other”, i.e. mainly retired and unemployed individuals.

As regards family composition (table 4.1), unmarried interviewees (single, divorced or widowed) accounted for 30%; more than 50% had children less than 10 years old (24%) or older (34%). A fairly large number of families included other adult members besides the parents.

The level of education of the sample was not very representative, since many interviewees (up to 42%) had university degrees and few had primary school or no education (2%).

The composition of the tourists sample is shown in Table 19.

Table 19 – Sample composition: tourists

Gender	46% male; 53% female
Age	58% from 25 to 45 years; 42% from 46 to 65 years
Nationality	53% Italian, 15% Other EU, 32% Non-EU
Job of interviewee	36% self-employed professionals, 25% office workers/teachers, 16% artisans/retailers, 10% housewives, 7% students, 6%other
Job of the head of the family	39% self-employed professionals, 33% office workers/teachers, 21% artisans/retailers, 7% other
Family composition	28% unmarried, 22% < 10 yrs, 30% children > 10 yrs, 17% other adult family members
Level of education	14% primary school/no education, 54% secondary school, 27% university degree, 5% Master/Ph.D.

The sample of tourists consisted of almost the same proportion of males as females. EU tourists accounted for 78%, Italians being the majority. Non-EU tourists were 32%.

The younger age group was more numerous in the tourist sample: 58% of interviewees were 25 to 45 years old and 42% were aged 46 to 65 years.

There was a large number of self-employed professionals both among the interviewees (36%) and the heads of their families (39%). They were followed by office workers/teachers and traders and retailers (16% of interviewees and 21% of family heads). Retired and “other” interviewees were less numerous compared with the sample of Croatian consumers.

As in the Croatian sample, there was a high proportion of unmarried (single, divorced or widowed) interviewees. Slightly more than 50% had one or more children, while those living with other adult family members (mostly of-age offspring) were much fewer among tourists.

The level of education was more balanced than that of the Croatian sample, as the proportion of those with primary or secondary school education seemed better to reflect the reality. However, the number of interviewees with a University degree was still very high.

3.3. General information about the purchase of food products

Given that the development and improvement of marketing strategies for specific products require first and foremost detailed information on consumers' habits and their decision-making process for the purchase of food products, this part of the work aimed at highlighting the main characteristics of the general demand for food products by Croats and tourists[30].

3.3.1. Croatian consumers

The Croatian demand for food products seems to be particularly sensitive to quality. Purchasing and consuming high-quality products is extremely important to 71%, very important to 25%, and important to 4% of respondents.

One of the main indications to emerge from the study is that the places where food is bought must be distinguished between those selling fresh (fruit, vegetables, meat, fish) and processed food. Fruit and vegetables are mainly purchased in open-air markets, whereas for other food products open-air markets come second place[31]. Among consumers living in urban areas[32], there is a strong conviction that fresh produce sold in open markets is home-grown, thus healthy and safe.

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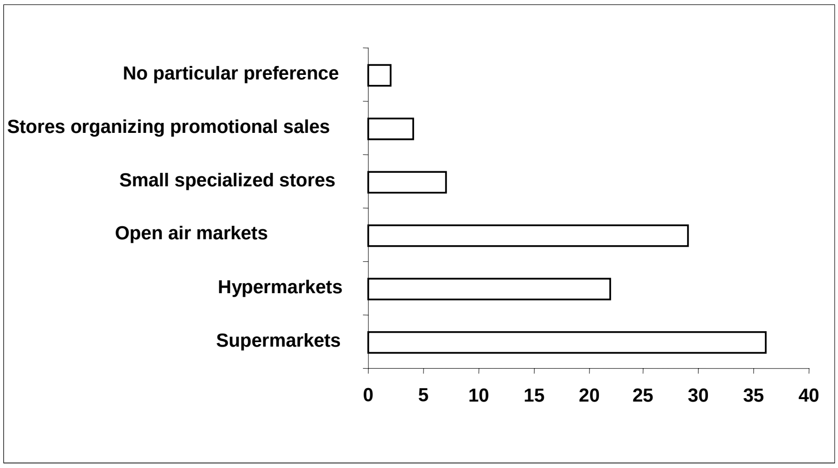
[30] These decisions are influenced by a number of variables, such as tradition, habits, living standard, etc. Consumer fears about food quality are also the result of specific events like mad cow disease, GMOs and other recent scares.

[31] Research carried out in 2001 by Ekoliburnija showed that ca. 50% of Croatian consumers buy produce, but not meat, meat derivatives and processed food in open-air markets.

[32] Since all interviewees lived in urban areas, very few said that they consume home-made food products.

Diagram 4 – Croatian consumers: main places where they purchase food products



*Relative frequencies, more than one answer provided by interviewees

Supermarkets and hypermarkets are gaining an increasingly important role, especially in Zagreb and Rijeka, and are in first and third place among food shopping places (Diagram 4). Open-air markets are not frequently patronized by interviewees living in Dubrovnik. Decisions are also influenced by age, hypermarkets being more attractive to younger and open-air markets to older persons.

Small specialized shops seem to have a substantial share of the purchase of products such as fresh meat and fish (butcher's and fishmonger's) or bread and similar products (baker's). By contrast, promotional sales do not appear to shift purchases much, and the number of those who give no importance to the selling place is extremely low.

The main variables that seem to influence the place of purchase of food products are city of residence and age. Decisions concerning the election of the selling place seems to be influenced predominantly by price (29% of answers) as well as the variety of the offer (27%). If the answers mentioning offer variety are summed to the 15% that privileged "nearness" and to the 2% that mentioned "other", which mainly regard the availability of some services (first of all parking place), the main factor is the reduction in the time required for food shopping.

However, trust in traders and habit are important to Croatian consumers, trust for women and habit mostly for younger interviewees. These two factors are especially important for those buying in open-air markets and small specialized shops, where friendly relationships are often established. The number of those who attribute no importance to place is very low.

As shown in Diagram 5, price is again the principal variable (20%) influencing the decision of what food to purchase, and it is even greater if the number of those who indicated promotional sales as decisive is considered. In this case, however, taste (18%), ingredients (16%) and product validity (14%) are also held to be important.

Diagram 5 – Croatian consumers: decisive aspects when choosing the food to purchase

*Relative frequencies, more than one answer provided by interviewees

Only middle-aged consumers were concerned with place of production and quality certificates. However, price and ingredients, together with taste, which reflect habit and tradition, seem to be the main indicators of food product quality for Croatian consumers. Quality marks and trust in the selling place and/or trader are much less important.

The "other" answers prevalently concern the quality of food, while some interviewees expressed a special interest in Croatian food products. Overall, the fieldwork evidenced a lively interest in Croatian food products and quality food.

The main fear of Croatian consumers when purchasing food products was that they might not be fresh (29%), and this fear seemed to be mainly influenced by age. Their second preoccupation was with the healthiness and safety of food (28%).

Another important result to emerge was that Croatian consumers do not particularly trust the labels on food products, as 28% expressed a lack of confidence in their truthfulness. Female and older interviewees were particularly concerned about this possibility. The eventuality that food may originate from polluted and unhealthy areas is next main fear of Croatian consumers. Interviewees living in Split seemed to be those most concerned.

Many interviewees said they feel almost powerless to reduce the risk of consuming food whose quality does not match the label, and thus that they "do nothing in particular" to address this problem (15% of answers). Those who, on the contrary, try to solve the problem do it mainly by buying products from the same producers (34%) or by purchasing their food in places where they have established a friendly relationship with the trader (12%).

Labels seem to have great importance in assuaging consumer fears, even though they are not described as important when choosing food. In fact, although many consumers do not trust the truthfulness of labels, almost 30% of them said that they read them carefully to allay their fears about food quality[33]. By contrast, few Croatian consumers address the problem by purchasing organic food or products bearing special-quality certificates.

Women were more likely than men to buy products from the same producers and to buy organic food products to allay their fears. More middle-aged and elderly subjects said they are attentive to labels than did younger people, may of whom said they to do nothing in particular to reduce their concern.

Once again, differences were registered in the different cities: the interviewees living in Split and Dubrovnik often buy products from the same producers or patronize the same places, those living in Rijeka were more likely to read labels or to do nothing in particular, while the highest percentage of those who buy organic to assuage their fears lived in Zagreb.

3.3.2. Tourists

With reference to the places where food is purchased, tourists expressed strong preferences, supermarkets being predominant, followed by hypermarkets. Open-air markets were a distant third. Younger people purchase more frequently at super- and hypermarkets, while older consumers prefer small specialized shops and open-air markets. The latter are also preferred by women.

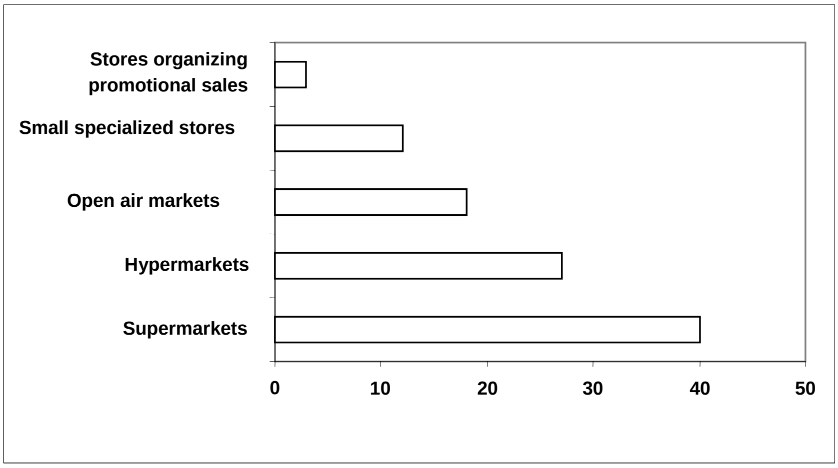
No particular differences emerged with reference to nationality except for promotional sales, which seem to be particularly appreciated by "other non-EU European tourists",

The features mainly privileged by tourists when choosing where to buy food are range of the offer (33%) and price (25%). If "nearness" and "offer variety" are summed, tourists, like Croatian consumers, try to limit the time spent shopping for food.

However, trust in the traders (11%) and habit (17%) are also important. In this case, some differences emerged with reference to nationality, as habit seemed to be more decisive among "other non-EU Europeans" and "other non-EU" tourists, while price seemed to be particularly important for "other non-EU European" tourists.

[33] This result seems to be more in line with data from previous studies (e.g. Ekoliburnija), which revealed that more than 50% of Croatian consumers are attentive to labels and food quality certificates.

Diagram 6 – Tourists: main places where they purchase food products



*Relative frequencies, more than one answer provided by interviewees

Diagram 7 – Tourists: decisive aspects when choosing the food to purchase

*Relative frequencies, more than one answer provided by interviewees

Product validity (best before), brand and trust in the selling place all influenced the choice of food products in a similar way. The role of quality certificates and of product origin was low among tourists (less than 3% each), although brand and validity seemed to have greater importance for "other non-EU European" and "other non-EU" tourists. Taste (25%), price (23%) and ingredients (15%) were the main considerations.

Among tourists, those who denied having any particular fears when purchasing food were quite numerous (10%). The worry that products might not be healthy or safe was followed at some distance by the concern that they might not be fresh. Trust in labels, though low, was higher than among Croatian consumers. The nature of fears seemed to be considerably influenced by "nationality". While the two categories of non-EU tourists were mainly preoccupied with the freshness of products and the truthfulness of marks and labels, the main concern of EU consumers were healthiness and safety. None of the tourists said they purchase organic food, and very few that they purchase certified products, to allay these worries. Many interviewees stated that they do nothing in particular to allay fears concerning food quality (23%). For most interviewees, the main method to assuage their concern is loyalty to producers (28%) and traders (16%) whose past offer was satisfactory. Careful reading of labels was the main way to address their worries for as many as 27% of tourists.

No significant differences where observed among answers provided by EU and non-EU citizens.

3.4. Comparison of the food purchasing habits of Croatian consumers and tourists

Comparison of family food-shopping habits of Croatian consumers and tourists yielded some differences.

As regards place, the main difference lies in the number of those who do their shopping in open-air markets. Indeed, more than 60% of Croatian consumers regularly purchase fresh produce in these markets. However, a large number of Croatian consumers have no particular preferences as to where they buy food.

With reference to the decisive factors affecting purchases, the influence of price and distance was much higher for Croatian consumers than for tourists.

Considerable difference also emerged when the elements affecting the choice of the food to purchase were analysed. The main difference regards the best before date, which was more important for tourists than for Croatian consumers. The latter were more concerned about the place of production and quality labels.

The fears that food might not be fresh or that labels might be untruthful concern Croatian consumers more than tourist. Analysis of the main actions adopted to allay these fears evidenced that purchase of organic food is more frequent among Croatian consumers, whereas careful reading of labels and shopping in the same places seem to be more widespread among tourists.

In partial contrast to what emerged with reference to the importance of marks, Croatian consumers buy products from the same producers more frequently than tourists to allay their concern. Although one of their main fears is that labels might be unreliable, they devote more attention than tourists to reading them. However, the main difference is that some, though few, Croatian consumers (5%) and no tourist said that they buy organic food to assuage their worries.

3.5. Level of acquaintance of interviewees with organic farming and some food logos

The preliminary section of the questionnaires contained questions directed at identifying the level of acquaintance of Croatian consumers and tourists with organic food products and food products bearing the “Croatian quality” and “Croatian creation” logos. The level of information of Croatian consumers and their ability to recognize the Eko logo on Croatian organic food were also investigated.

3.5.1. Organic farming

According to the fieldwork, more than 80% of Croatian interviewees said they are acquainted with organic food products, while 17% had never heard about them. These very positive data must be taken with caution and seen in the light of the sample’s composition. A very high proportion had secondary or university education, and all respondents lived in the largest Croatian cities, probably resulting in a higher-than-average level of knowledge.

More Croatian consumers than tourists affirmed to be acquainted with organic farming. Some 29% of foreign interviewees were not acquainted with organic farming. Again, the structure of the sample should be considered. Respondents with primary school education were more numerous among tourists than among Croatian consumers, and places of residence, though not investigated, were presumably more heterogeneous than those of Croatian consumers.

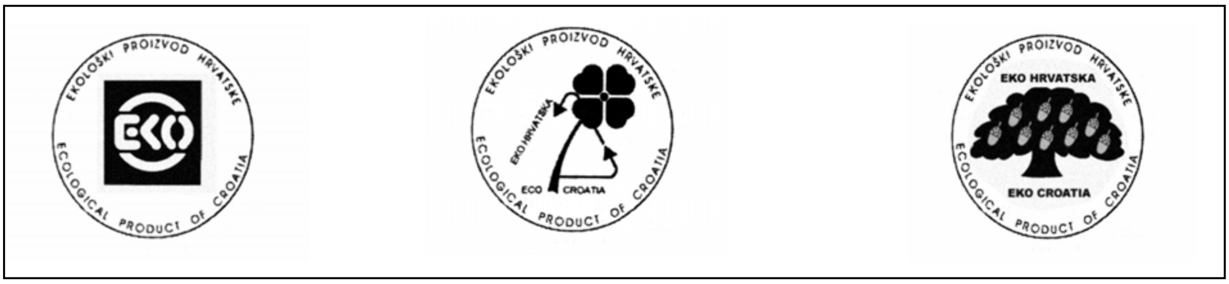
The different nationalities within the tourists sample should also be considered. Even though EU citizens, who are likely to be more informed about organic farming, were numerous, some 30% of tourists were non-EU citizens.

Language problems that were sometimes encountered when interviewing tourists may also have affected results.

Altogether, it may be stated that there were no significant differences in the levels of information of Croatian consumers and tourists regarding organic farming.

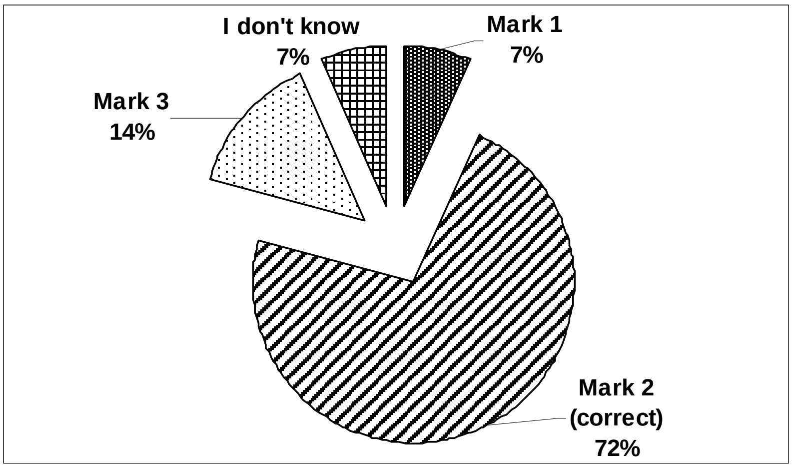
Awareness of the Croatian Eko logo was also analysed among Croatian consumers, who were asked if they had ever seen any of the logos shown in figure 4.1 (where the first and third are fakes) and to indicate the one appearing on Croatian organic food products. More than 33% said did not know about the logo, and 11% that they were not certain they recognized it.

Figure 2 –Eko logo test



More than 50% of interviewees said they knew the logo, a particularly positive result considering its recent introduction and the few products that bear it. As concerns the number of those who correctly recognized it, when consumers were asked to indicate the Croatian Eko logo, about 40% could tell it from the fakes (or about 70% of those who originally said they knew the logo); almost 30% of those who said they knew it indicated a fake logo or said it was not among those shown.

Diagram 8 – Croatian consumers: "Which of these logos is the Croatian Eko logo?"

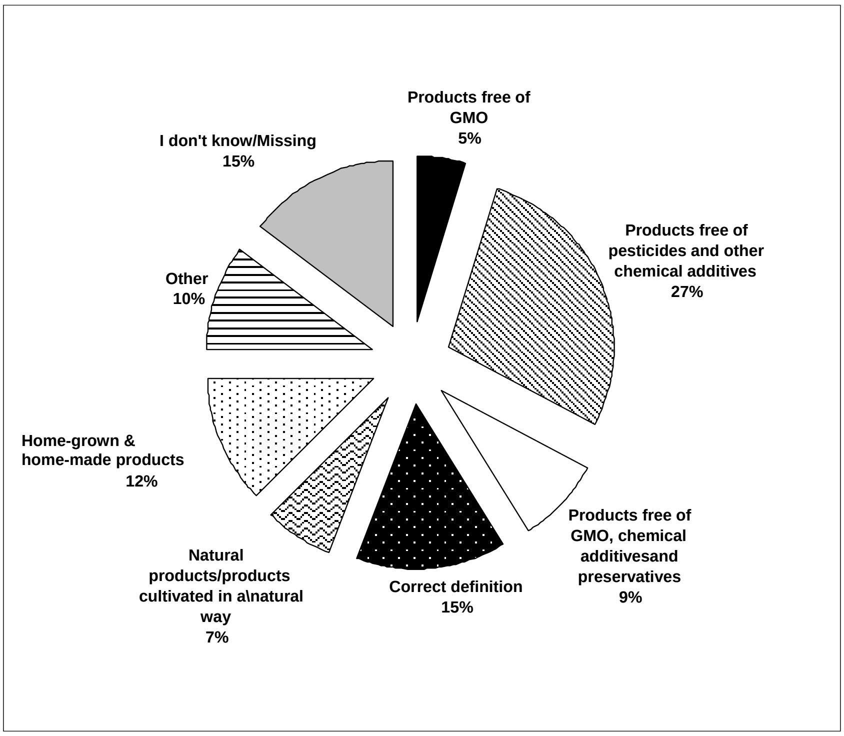


The very large proportion of correct answers is significant, given that the chance probability of a correct answer was 33%. Again, these data should be considered with caution and seen in the light of sample structure, which included a large percentage of persons with secondary or university education.

To gain further information on the knowledge of organic farming by Croatian consumers and tourists, they were asked to state in their own words which characteristics distinguish these from conventional products. A wide range of definitions was given by interviewees.

The replies of Croatian consumers are illustrated in Diagram 9. Eight categories of definitions were identified.

Diagram 9 – Croatian consumers: definitions of organic farming

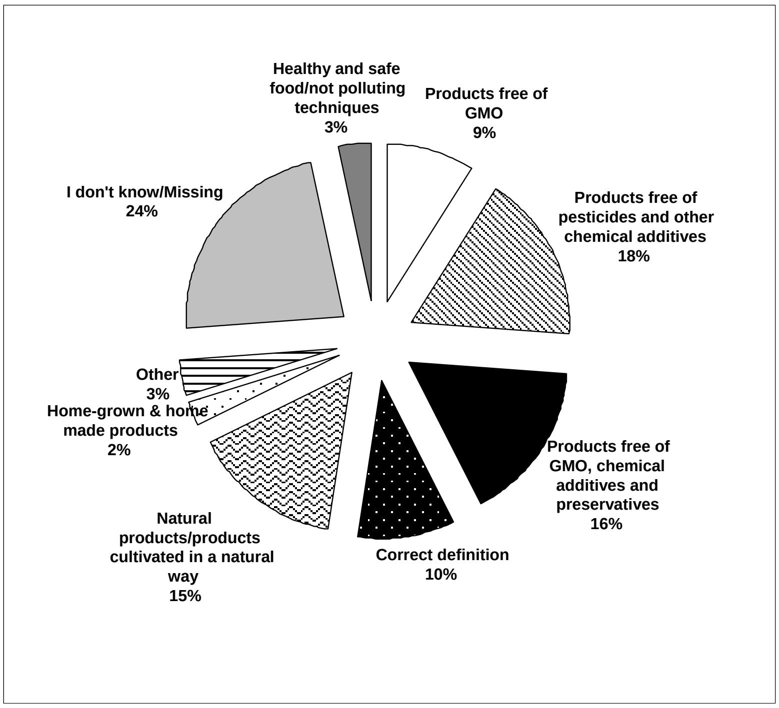


About 10% of interviewees gave an incorrect answer, and 15% were unable to provide one. Around 15% offered a correct definition, making reference to the production techniques and/or compliance with laws regulating organic farming, and distinguished it from their conventional counterparts. Some also made reference to the certification process. The remaining answers (60%) were partially correct definitions. Most Croatian consumers are convinced that organic products are free of pesticides and other chemical inputs (27%) and/or equate organic with home-grown food (15%). The main fears of Croatian consumers concern pesticides and many believe that home-grown/made products are free of them[34]. Other definitions made reference to the production process (7%) or, again, expressed a conviction that organic products do not contain pesticides or chemicals. Many interviewees believe that organic food products do not contain GMOs.

[34] In 2001, Ekoliburnija, carried out a survey to investigate the level of information of Croatian consumers about organic food. Of 600 Croatian consumers, 36% considered organic products equivalent to home-grown products.

Overall, the definitions provided show that the majority of Croatian consumers know what organic farming is with great approximation. In the tourist sample, many missing answers or "I don't knows" (up to 24%) and the low number of correct answers (10%) may, at least partially, be attributed to language problems.

Diagram 10 – Tourists: definitions of organic farming



About 24% of tourists said that organic food products are free of GMOs, while 18% made exclusive reference to pesticides and other chemicals, which would not be found in organic food. A large number of interviewees said that organic food products are natural products (15%), probably meaning that they are produced using traditional techniques. Only a small proportion of tourists consider organic and home-grown products to be equivalent.

3.5.2. The "Croatian quality" and "Croatian creation" logos

In this preliminary section we also explored the number of Croatian consumers and tourists who are acquainted with the "Croatian quality" and "Croatian creation" logos. It emerged that 83% of the former and fewer (46%), but still many, tourists are acquainted with products bearing these labels.

A large number of Italian consumers living in border areas said they regularly purchase food in Croatia, and showed a high level of information concerning Croatian food products. As regards the latter question, some 30% of tourists were non-EU citizens, mostly from former Yugoslav

Countries: these exhibited a good knowledge of Croatian food products, because they regularly consumed them until recently and because the former Yugoslav Countries are still the main export markets for Croatian food.

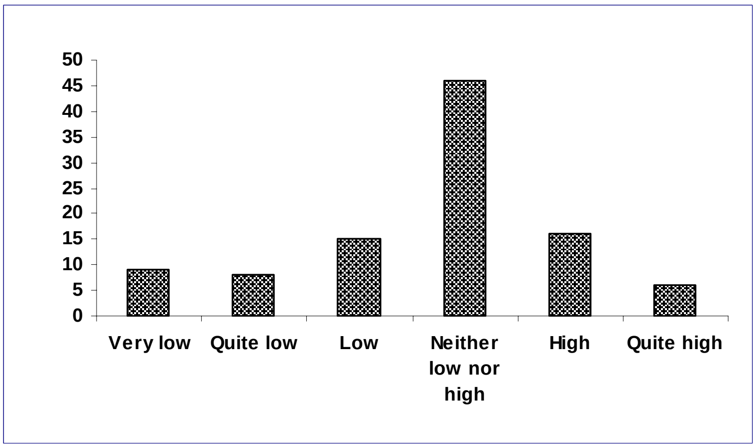
3.6. Organic food

3.6.1. Croatian consumers

The level of knowledge and information about organic food products was analysed in detail in this part of the work. The very first result was that only 42% of Croatian consumers are aware that conventional agriculture pollutes. Residents of Split and Zagreb gave the highest proportion of corrects answers, and those of Dubrovnik the largest number of wrong answers.

As regards organic farming, the main source of information are the media in 50% of cases, followed by friends and colleagues (30%). Promotional sales have a smaller role, while “other” mainly indicated advice from doctors or information from schools or universities.

Diagram 11 – Croatian consumers: level of information and knowledge about organic food



*Relative frequencies

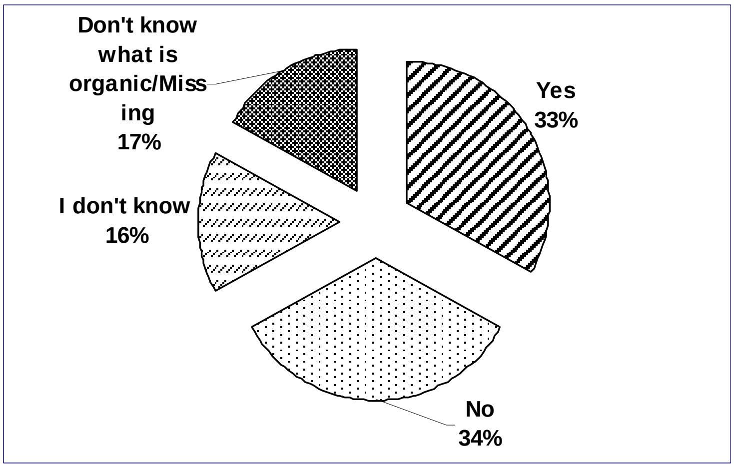
Croatian consumers seemed to be aware of the fact that their level of information and knowledge about organic farming should be improved. More than 30% of interviewees judged themselves as having a low or very low level of knowledge; 46% believe they know only the basic information concerning organic farming, and 24% that their level of knowledge and information is high or quite high. None defined their level of knowledge as very high. However, when asked to indicate, among four definitions, the correct description of organic farming, nearly 80% gave the correct answer and only 1.2% were unable to answer.

Table 20 – Croatian consumers: definition of organic farming

Definition: Organic farming	Absolute frequencies	Relative frequencies (%)
uses limited quantities of mineral fertilizers and pesticides	1	0.6
avoids mineral fertilizers and pesticides and uses methods that restore the land's original fertility and respect the well being of animals	134	77.5
uses organic ecological components, never pesticides	36	20.8
does not allow the use of machines	0	0
I don't know	2	1.2

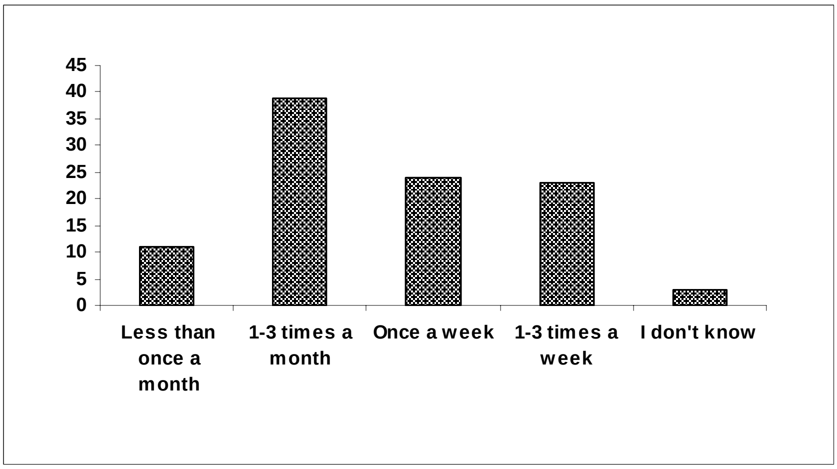
One of the objectives of the fieldwork was to define and quantify the demand for and consumption of organic food in Croatia.

Diagram 12 – Croatian consumers: "Do you buy organic food for yourself or your family?"



To the question "Do you purchase organic food?", only 40% of those who said they were acquainted with organic farming answered in the affirmative. Given the number of those who answered in the negative (34%) and of those who said they are unacquainted with organic farming, only 33% of Croatian interviewees actually buy organic food products. "I don't know" answers (16%) were considered as negative answers, since the purchase of organic food is a conscious decision and this type of food is highly unlikely to be bought and consumed unaware. In addition, the majority of Croatian consumers who said they buy organic food do it infrequently: about 38% from 1 to 3 times a month, and 11% less than once a month.

Diagram 13 – Croatian consumers: frequency of purchase of organic food



*Relative frequencies

Again, different consumer habits emerged in different cities. The majority of those who said they purchase organic food live in Dubrovnik and Split, while few residents of Rijeka did.

The purchase of organic food was especially influenced by the level of information and knowledge of consumers with reference to these products. Those with greater knowledge and information buy organic products more frequently. Still, even among those interviewees who defined their level of information as high or very high, there was a surprising percentage of individuals who are not certain whether they purchase organic food products. Consumers who spend substantial sums (200 Kunas/month or more) on organic food were predominant. In this category, which accounts for almost 43% of the answers, 18% of interviewees buy organic food very frequently, spending more than 500 Kunas/month35. A large number of interviewees (30%) said they spend 100 to 200 Kunas and around 20% spend less than 100 Kunas. Interviewees living in Dubrovnik and Split buy organic food more frequently and are also those who spend most, although the residents of Zagreb also spend substantial sums.

Doubts about the truthfulness and significance of some data were raised by the answers on the main places where organic food is purchased, since an excessive number of consumers said they do so in open-air markets even in cities, like Split and Dubrovnik, where no stands sell organic food (Table 21). Another 33% of interviewees from Dubrovnik said they buy organic food directly from farmers, even though no organic farms are registered in the County.

These answers evidence that the number of Croatian consumers who actually purchase organic food is in fact lower than the number obtained in the previous parts of the survey (where

[35] Average 2002 annual exchange rate: 1 HRK / 7.863712 $, Hrvatska Narodna Banka, Godisnji i mjesecni devizni tecajevi, HNB, 2004

33% said they buy organic food), because some consumers confuse organic with home-grown food and/or with produce sold in open-air markets.

Table 21 – Croatian consumers: main places of purchase of organic food by city

City	Directly from farmers	In specialized organic food shops	In small markets	In supermarkets / hypermarkets	In open-air markets
Dubrovnik	28%	4%	20%	17%	31%
Rijeka	23%	33%	11%	33%	0
Split	15%	33%	4%	33%	15%
Zagreb	22%	31%	3%	22%	22%

*Relative frequencies, more than one answer provided by interviewees

Finally, the minor importance of the Eko marks for Croatian consumers and their high level of trust in traders were confirmed in this detailed part of the study.

The variables influencing the choice of the place of purchase of organic food are age (younger interviewees prefer open-air markets) and amounts spent (as those who purchase more and spend more. i.e. 200 Kunas or more, buy more frequently directly from farmers).

Doubts concerning the numbers actually purchasing organic food were also raised by the ability to recognize some organic marks sold on the Croatian market. This question was prepared as a test, since some of the names were invented.

Table 22 – Croatian consumers: "Do you recognize these organic marks?"

Marks	Yes	No
Mavrovic	77%	33%
Bio Vega	49%	51%
Prima Natura	13%	87%
Eko Dalmacija	21%	79%
MID	0	100%
Bio Avent	7%	93%

*More than one answer provided by interviewees

As shown in Table 22, the most widely recognized organic marks were "Mavrovic" and "BioVega". The first appears to be particularly well known in Rijeka and Zagreb, the second in Split and Dubrovnik. A number of interviewees recognized "Prima natura" and "Bio Avent", which were invented. Many interviewees also said they recognized the "Eko Dalmacija" logo, which is a real organic label but is sold in limited areas of Dalmatia, so the actual number of those who know it is probably lower. Again, the effective number of those who purchase organic food in Croatia is thus likely to be much lower than consumer answers lead to expect.

In conclusion, some data and convictions of Croatian consumers concerning organic products were collected. Few (4%) were dissatisfied with the organic supply in Croatia compared with 46% who were satisfied and 35% who were very satisfied.

When consumers who purchase organic food and those who are acquainted with but do not buy it were asked to express their agreement and the intensity of their agreement or disagreement with some features of organic food products, there emerged a profound trust in the quality characteristics of products. Those who strongly agreed with product healthiness (61%) and nutritional characteristics (51%) greatly exceeded the number of those who disagreed or strongly disagreed. Only 4% disagreed with the statement that organic food products are healthy, and 7% did not believe that organic food is nutritional. As regards product safety, however, most consumers agreed (34%) with this statement, whereas those who strongly agreed were fewer (around 20%). Nearly the same proportion (17%) neither agreed nor disagreed.

With reference to the statement “Organic food has a good taste”, the majority of interviewees agreed (24%) or strongly agreed (up to 39%), but those who neither agreed nor disagreed were also numerous (20%).

The strongest conviction of Croatian consumers was that organic food products are free of GMOs, as 73% strongly agreed, 10% agreed, and only 6% disagreed or strongly disagreed.

Another firmly held conviction was that organic food is too expensive: 49% strongly agreed with this statement and another 37% agreed, while only 3% did not.

However, consumers are convinced that organic food products are better than conventional products and that the labels they bear are reliable and guarantee this particular quality.

The convictions expressed by the resident of Split seem to contrast with those of the other interviewees, particularly those living in Rijeka. The former were those who most doubted the reliability of organic food labels and were least satisfied with organic food products (safety, healthiness, nutritional characteristics and absence of GMOs). By contrast, the residents of Rijeka and Zagreb strongly agreed that organic food is too expensive.

Even though the majority of Croatian consumers strongly disagreed with the statement that organic farming is a fad (51%), a significant number (18%) were uncertain or agreed (6%). It is surprising that many of those who strongly believe that organic food is a fad do buy organic food.

The main reasons for the low demand for organic food in Croatia are summarized in Table 23. All interviewees were asked to state the reasons for not buying organic or more organic food.

Table 23 – Croatian consumers: main reasons limiting their purchases of organic food

Reasons	Absolute frequency	Relative frequency
Price	88	22%
Conventional food is better	3	1%
Conventional food is safe	3	1%
Don't like the taste	10	2%
Don't trust the organic food labels	9	2%
Organic food is difficult to find	53	13%
Poor offer	100	26%
Poor promotion and information	81	20%
I don't know where to buy organic food	54	13%

*More than one answer provided by interviewees

Price was the main motivation for 22% of the sample, difficulties in finding organic products for 13%, poor offer for 26%, and scarce information about the places where organic food products can be purchased for 13%.

The low proportion of interviewees indicating price as the main reason (22%) is surprising, since this fact emerges as the main reason for the low demand, suggesting a low level of knowledge of organic food by Croatian consumers. In fact, price was mainly stated as an obstacle by those who purchase organic food. Those who buy it once a month to once a week are mostly those who believe that price does not allow them to buy more. Price seems to be more important for younger and, especially middle-aged, interviewees, whose families are presumably more numerous and already spend a large share of their income in food purchases.

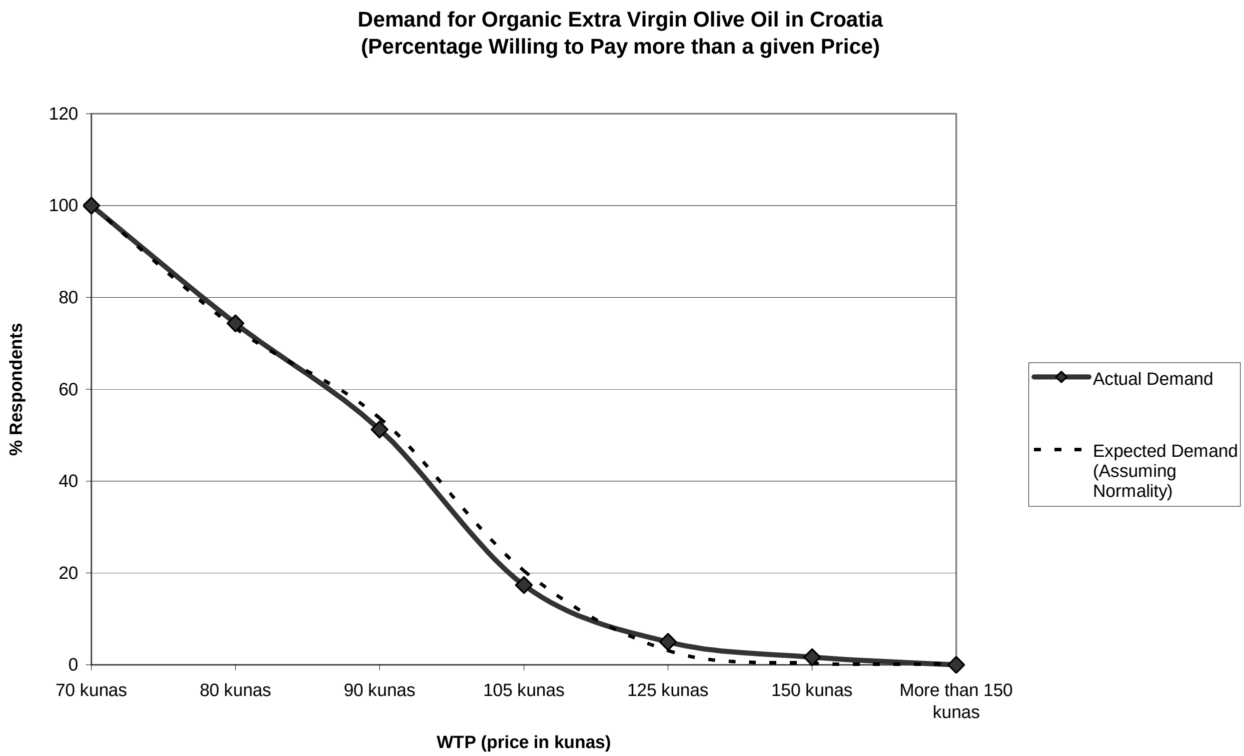
"Poor offer" was mostly indicated by those who purchase organic food and would appreciate a broader range. These interviewees also complained of poor promotion of organic food.

Among those who affirmed to be unacquainted with places where to buy organic food, the highest number and those who do not purchase it lived in Rijeka.

The survey also explored the willingness of Croatian consumers to pay (WTP) for organic extra-virgin olive oil. The analysis used the contingent valuation method (CVM), a stated-preference valuation technique. CVM has mainly been used for non-marketed (public) goods, although several studies on how to apply it to market (private) goods have been conducted. CVM applied to market goods seeks to answer questions related to the market demand for certain product attributes (e.g. reduced pesticides residues, fat or cholesterol) or methods of production (e.g. organic or GMO-free). In this survey we used an open-ended questioning method, i.e.

subjects were asked to state their maximum WTP for organic extra-virgin olive oil: 78.6% said they would be willing to pay a higher price.

The inferred demand curve for organic extra-virgin olive oil is reported below: 70 Kunas is the average market price for conventional extra-virgin olive oil. If prices were equal, 100% of consumers would buy organic olive oil, whereas only 5% said they would buy it if it cost more than 125 Kunas, as is the case at present. The average WTP was 104.5 Kunas, and 51.9% of consumers would not be willing to pay more than 90 Kunas.



WTP was correlated to individual consumers characteristics using ordered probit regression analysis. Higher WTP is directly and significantly correlated with:

- Knowledge of the organic Eko logo
- Parents of young children
- Those who consider themselves as highly informed and knowledgeable about organic food
- Those who consider price as a decisive factor in choosing a food product.

The WTP data show that demand for organic products could potentially involve up to 5% of Croatian consumers even if consumer price premia were 78% of the price for the conventional product. This analysis regarded organic olive oil, a niche luxury product, and cannot be extended to commodities, but it shows a moderate market potential for the domestic organic demand.

3.6.2. Tourists

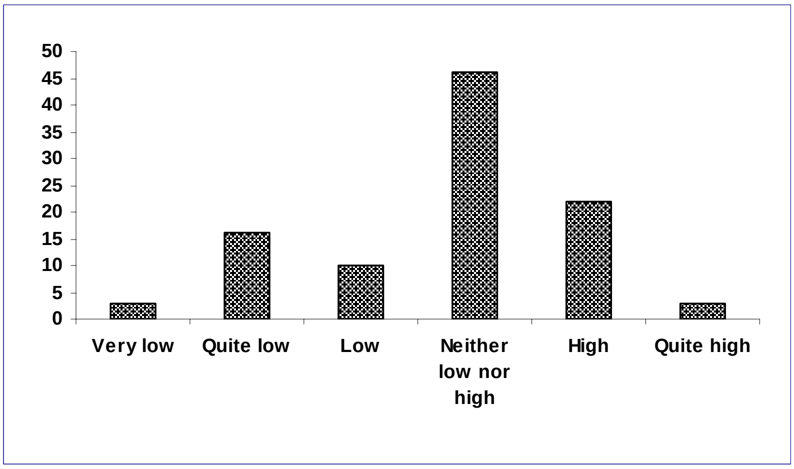
While the tourists acquainted with organic farming were 71% of the sample, those aware of the negative impact of conventional agricultural techniques on the environment were 35%.

Almost the same number of tourists and Croatian consumers gave a wrong definition of organic farming (33%), while 32% were uncertain and did not give one. “Other non-EU citizens” gave the majority of correct answers.

The main sources of information regarding organic farming were the media (58%), followed by friends and colleagues (26%) and promotional sales (14%). Friends and colleagues are a particularly important source for non-EU citizens, while the media have a considerable role for retired interviewees, students and housewives independently of nationality.

A large number of tourists believe to be aware of only the basic information about organic farming (46%), 25% to have greater-than-average knowledge, and 29% to know little or very little.

Diagram 14 – Tourists: level of information and knowledge concerning organic farming



*Relative frequencies

Younger and middle-aged interviewees possessed a higher level of information; an influence on knowledge was also evidenced for job and education, as self-employed professionals were again more informed, as were individuals with higher education.

No significant differences were observed between EU and non-EU citizens.

Tourists were also asked to indicate among some different definitions of organic farming the one they believed to be correct. More than 80% of tourists identified the correct definition, very few gave a wrong answer and 7% were unable to answer (Table 24).

Table 24 – Tourists: definition of organic farming

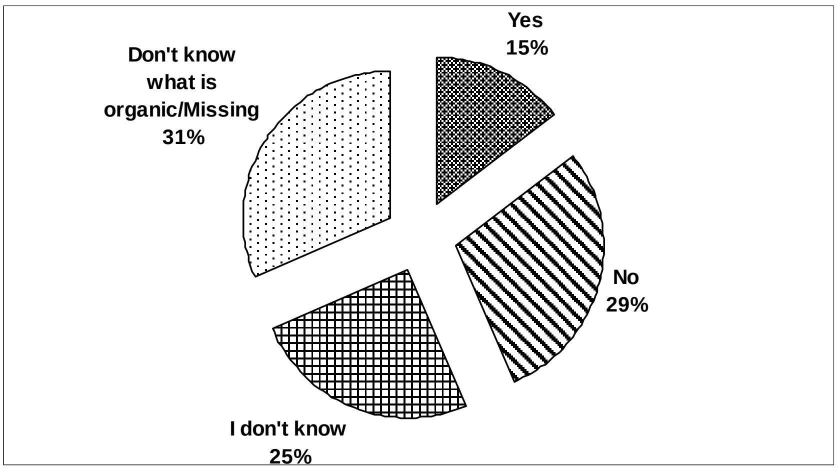
Definition	Absolute frequencies	Relative frequencies
uses limited quantities of mineral fertilizers and pesticides	0	0%
avoids mineral fertilizers and pesticides and uses methods that restore the land's original fertility and respect the well being of animals	145	82.9%
uses organic ecological components, never pesticides	18	10.3%
does not allow the use of machines	0	0%
I don't know	12	6.9%

More than 60% of tourists acquainted with organic farming (45% of the sample) said they buy organic food at home, accounting for 67% of "other EU" citizens, 71% "other EU" citizens and 73% of Italians. Among "other non-EU Europeans", less than 50% buy organic food at home.

A very high proportion of interviewees (86%) buy organic food regularly and more than once a week, 10% do so once a week, and 4% a few times a month. Despite this, very few said they had bought or intended to buy organic food products while on vacation in Croatia. It should be highlighted that this is at least partly due to the fact that tourists take many meals in hotels and restaurants and do not frequently purchase food from stores and markets[36].

Only 15% of tourists who regularly purchase organic food at home were interested in doing so while in Croatia. Almost 30% of the answers were explicitly negative, while some 25% of those interviewed did not exclude the possibility, but were not particularly interested.

Diagram 15 – Tourists: intention to purchase organic food in Croatia



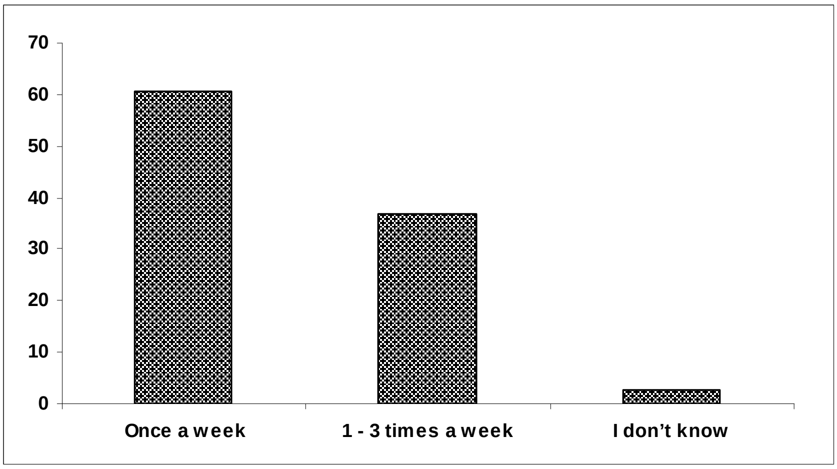
[36] This study should be extended by exploring the demand for organic food by restaurants and hotels.

Table 25 – Tourists: intention to purchase organic in Croatia by nationality

Nationality	**Yes**	**No**	**I don't know**	**Total**
Italian	22%	35%	43%	100%
Other EU	19%	35%	46%	100%
non-EU European	17%	61%	22%	100%
Other non-EU	31%	38%	31%	100%

There were no significant differences regarding the intention to purchase organic food in Croatia between EU and non-EU citizens. Whereas middle-aged and older interviewees expressed some interest, the younger tourists were uninterested even though they did not exclude the possibility.

Diagram 16 – Tourists: frequency of purchase of organic food during one week of vacation in Croatia



*Relative frequencies

The frequency data show that the majority of interviewees (60%) intended to buy organic food once during a one-week stay in Croatia and 38% more than once. Given the sums they intended to spend (in 50% of cases from 50 to 100 Kunas and in another 30% from 20 to 50 Kunas) and the occasional nature of the actual or intended purchases, it can be inferred that these consumers are just interested in tasting Croatian organic food. Most Italians intended to spend 50 - 100 Kunas (65%), whereas 22.5% of "other non-EU Europeans" intended to spend more. The younger tourists were again less willing to spend significant sums on organic food while on vacation.

Table 26 – Tourists: sums they intend to spend on organic food during one week of vacation in Croatia by nationality

Nationality	**20 – 50 Kunas**	**50 - 100 Kunas**	**100 - 200 Kunas**	**I don't know**	**Total**
Italian	30%	65%	0	0.5%	100%
Other EU	0	100%	0	0	100%
non-EU European	37.5%	25%	25%	12.5%	100%
Other non-EU	25%	25%	0	50%	100%

The large number of tourists who mentioned open-air markets with regard to the main places where they had purchased organic food in Croatia raise some doubts. Given that tourists were mostly interviewed on the islands and small coastal towns, where there are no registered organic food stands, the actual number of those who did purchase organic food must be even lower than the 15% that emerged from the previous questions. These answers show that also some tourists confuse organic food with home-grown products sold in open-air markets.

Table 27 – Tourists: main places where organic food was bought by place of interview

City	Directly from farmers	In specialized organic food stores	In small markets	In supermarkets/hypermarkets	In open-air markets
Crikvenica	0	0	29%	29%	42%
Dubrovnik	0	0	33.30%	33.30%	33.30%
Makarska	0	0	0	0	0
Pag	0	0	40%	20%	40%
Rijeka	0	0	40%	20%	40%
Split	0	0	0	100%	0
Zadar	0	6%	29%	29%	36%
Zagreb	0	0	0	0	0

*Relative frequencies, more than one answer provided by interviewees

Further doubts were raised by the data that emerged when tourists were asked to indicate some of the organic labels sold on the Croatian market.

Table 28 – Tourists: "Do you recognize any of the following organic labels?"

BRAND	YES	NO
Mavrovic	30%	70%
Bio Vega	35%	65%
Prima Natura	0	100%
Eko Dalmacija	76%	24%
MID	0	100%
Bio Avent	0	100%

*Relative frequencies, more than one answer provided by interviewees

Unlike Croatian consumers, none of the tourists said they recognized the fake marks. However, the very high proportion (76%) who recognized the "Eko Dalmacija" label, which represents a small association of producers of organic fruit and vegetables that are not sold in open-air markets or supermarkets but in a limited number of specialized shops, suggests that some interviewees indicated it because of its plausible name.

Nearly all consumers who had purchased organic food in Croatia indicated a low level of satisfaction with the Croatian organic supply independently of the place where they were interviewed or products were purchased. The majority of tourists said that the organic offer is not satisfactory (73%) or extremely unsatisfactory (13%), and very few (3%) of those who had bought organic food in Croatia thought otherwise.

By contrast, most tourists expressed high (28%), very high (60%) and seldom neutral levels of satisfaction with the quality of products; there were no negative answers. Consumers who had purchased "Biovega" were more likely to express a favourable opinion. There were no nationality differences in the level of satisfaction. The majority of "very high" answers was given by those who had bought organic food in supermarkets.

The opinions of tourists concerning the characteristics of the organic food sold in Croatia indicated that their strongest conviction is that it is more nutritional (11% of interviewees agreed and 78% strongly agreed) and, more in general, better than conventional food (16% and 64% respectively). Unlike Croatian consumers, tourists also appreciated its taste, as 82% agreed or strongly agreed with the statement that Croatian organic food has a good taste. Many also believed that Croatian organic food is safe, although the proportion of those who agreed (56%) was higher than the proportion of those who strongly agreed (15%) and those who neither agreed nor disagreed were 27%.

The price of organic food in Croatia does not seem to limit tourist demand. In fact, those who agreed or strongly agreed with the statement that organic food is too expensive accounted for 25%; another 60% neither agreed nor disagreed, while some 2% disagreed.

A large number of interviewees (75%) said that distribution and promotion of organic food are not well organized in Croatia, making it difficult to find.

As regards tourists' desire to find Croatian organic products on their markets, even though most consumers agreed (52%), many were uninterested (31%) or even disagreed (12%); the prevalence of "I agree" answers should thus not be interpreted as particularly encouraging[37]. This is also confirmed by the fact that a fair number of interviewees did not seem to feel that the organic supply in Croatia is not worse than the supply in their stores. Up to 28% of those interviewed neither agreed nor disagreed that "Croatian organic food is worse than the organic food I purchase in my Country", and 14% agreed with this statement. However, it is important to note the high prevalence of consumers who had appreciated both the taste and the quality of the organic products they had bought, as well as the idea of finding them in their supermarkets.

Italian consumers seemed to be those who most appreciated organic compared with conventional products, and also strongly believe that they are more nutritional. Although the

[37] It is important to note that the organic supply in Croatia, particularly in supermarkets and other stores, is mostly represented by imported products, so that tourists who purchased organic food did not necessarily buy Croatian products. These results are therefore not particularly indicative of the potential of the Croatian organic supply on foreign markets or on the local tourist market.

majority did not believe that Croatian organic food products are too expensive, they were the most numerous of those who are not convinced that Croatian organic food is not worse than the food they buy at home, and were less interested in finding Croatian organic food in their Country

The main reasons why tourists did not purchase more organic food products during their vacation in Croatia are shown in the following table. The principal ones seem to be distribution and promotion inefficiencies that make the supply poor and selling places difficult to find.

Table 29 – Tourists: main reasons limiting their purchases of organic food in Croatia

Reasons	Absolute Frequencies	Relative frequencies
Price	44	12.0%
Croatian conventional food is better	1	0.3%
Croatian conventional food is safe	14	3.8%
I don't like the taste	1	0.3%
I don't trust the organic food labels	1	0.3%
Organic food is difficult to find	24	6.5%
Poor offer of organic food	88	23.9%
Poor promotion and information	103	28.5%
I don't know where to buy organic food	81	22.0%
Not interested	11	3.0%

Based on nationality, prices and difficulties in finding places offering organic food products were particularly limiting for “other non-EU citizens”.

3.7. Purchasing habits of organic food of Croatian consumers and tourists

There were no significant differences in the level of information of Croatian consumers and tourists with reference to conventional and organic farming. Differences emerged in the main sources of information on organic farming, the media seemingly having a large influence on both samples, whereas the role of friends and colleagues was much greater among Croatian consumers.

Significant differences emerged with reference to the frequency of purchases of organic food and the sums spent on it, both of which were higher among tourists.

As regards the organic labels, some Croatian consumers and none of the tourist said they knew the fake logo (“Prima natura”). “Mavrovic” was mainly recognized by Croatian consumers, whereas a high proportion of tourists indicated Eko Dalmacija, probably because it is plausible.

Significant differences (χ square and asymptotic significance level tests) were also obtained for the agreement of different consumer categories with the statements proposed, particularly those concerning the taste and safety of organic compared with conventional food. In all cases, a much greater number of Croatian consumers expressed a stronger level of distrust. More Croatian consumers than tourists disagreed or strongly disagreed that organic food is too expensive, whereas no significant differences emerged with reference to their level of satisfaction with the organic food products sold in Croatia.

Exploration of the main reasons limiting the purchase of organic food in Croatia highlighted several significant differences, especially with regard to price, trust in labels, opinion that organic food is safe, and information about places where to purchase organic food products. Price and lack of trust in labels seem to affect Croatian consumers more than tourists, while tourist were more likely to answer that conventional food is as safe as organic food and that they do not know where to buy organic food in Croatia.

3.8. The "Croatian creation" and "Croatian quality" logos

3.8.1. Croatian consumers

As shown in Table 30, although many Croatian consumers said they were acquainted with the "Croatian creation" and "Croatian quality" labels, those who actually know what they guarantee were fewer. This was particularly true of "Croatian quality", for which only 28% gave the correct answer. The majority of Croatian consumers could not distinguish between the two labels and thought that they both guarantee Croatian autochthonous and traditional products.

The "Croatian quality" logo suggested to 11% of consumers that products bearing them use exclusively Croatian raw materials. As regards Croatian creation", even though the majority of interviewees gave the correct answer, 17% believed that products bearing it use exclusively Croatian raw materials. The majority of correct answers were provided by middle-aged and older citizens, particularly those living in Zagreb and Rijeka.

Table 30 – Croatian consumers: "What do the "Croatian quality" and "Croatian creation" logos guarantee?"

	Croatian quality	**Croatian creation**
Definitions	**Relative frequencies**	**Relative frequencies**
That the raw materials originate from Croatia	11%	17%
That product quality meets Croatian regulations	18%	1%
That the quality characteristics of products, produced in Croatia, meet international standards	28%	2%
That the products and package are designed by Croatian designers	0	1%
That they are Croatian autochthonous products, resulting from Croatian tradition, research and technological innovation, and that their quality characteristics meet high international standards	37%	75%
Other (specify)	3%	2%
I don't know	3%	2%

The predominant source of information concerning these products were the media (80% of those interviewed); promotional sales seem to have a marginal role (12%). However, when asked to define their level of information and knowledge about the logos, a minority of Croatian consumers (22%) said it was high or very high, and 27% defined it as low or very low, while the majority said they had basic but sufficient information. The level of information did not appear to be different among age groups or to be influenced by level of education[38].

The majority of Croatian consumers (78%) said they buy “Croatian quality” and “Croatian creation” products (while far fewer said they buy organic food products); few were uncertain (19%) and only 3% stated that they do not purchase products bearing the logos.

Significant differences were that a particularly high number of consumers purchase labelled products in Dubrovnik and Rijeka, whereas in Split and Zagreb 30% of interviewees were uncertain as to whether they occasionally buy them. The number of those who actually buy “Croatian creation” and “Croatian quality” products is however lower if the answers concerning product names and the main places where the interviewees said they shop are analysed. Indeed, 23% of interviewees indicated names of products that bear neither logo (“Sirko” cheese), and another 11% said they buy in open-air markets, where they are not in fact sold.

Overall, the fieldwork evidenced an intense interest by Croatian consumers in Croatian food products. This suggests that at least part of the answers of this section may reflect a tendency to buy food “made in Croatia” rather than labelled Croatian food products. Further investigation of this aspect is clearly warranted.

Some 40% of Croatian consumers said they are influenced by quality labels (for 30% they are quite important and for 10% they are decisive), 35% are little influenced or not at all, and 23% are not influenced either positively or negatively. Therefore, although those who attribute importance to labels are the higher proportion, labels are unimportant to more than 50% of Croatians. This lends at least partial support to the concept that a large number of Croatian consumers in fact mean to purchase products “Made in Croatia” (out of a love of tradition, habit, a desire to help the economy or a conviction that Croatian food is better) rather than to buy quality-label food.

Again, the interviewees living in Dubrovnik appeared to be those most influenced by the labels, as for 28% they are decisive when purchasing these products. By contrast, interviewees from Rijeka, although they said they buy these products frequently, do so for different reasons.

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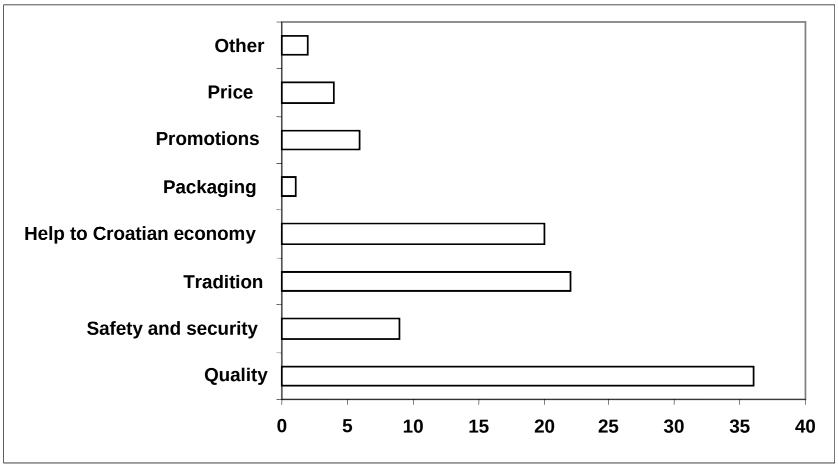
[38] Again, it should not be forgotten that the interviewees were exclusively city dwellers with a particularly high proportion of secondary school or University education.

Table 31Table 9.2. – Croatian consumers by city: "How much are you influenced by quality labels?"

City	Not at all, I would buy the products anyway	Little	Neither positively nor negatively	Quite a lot	They are decisive	I don't know
Dubrovnik	4%	11%	5%	52%	28%	0
Rijeka	50%	10%	40%	0	0	0
Split	18%	14%	21%	39%	4%	3%
Zagreb	18%	29%	40%	18%	0	0

The main reasons that stimulate those interviewed to buy quality-label products were quality (83%), a respect of tradition (51%) and a desire to help the economy (48%); safety and security considerations were mentioned by 22%. Promotions, price and "other" reasons (mainly taste and the habit to buy some Croatian products) followed at considerable distance. Safety and security were mostly indicated by the younger interviewees (25-30 years) and tradition mostly by middle-aged and older consumers.

Diagram 17 – Croatian consumers: main reasons for buying products bearing quality labels



*Relative frequencies, more than one answer provided by interviewees

Difference among cities emerged again, as interviewees from Split and Dubrovnik were more likely to mention "to help the economy", whereas tradition seemed to have greater importance for those living in Rijeka and Zagreb, who were also more concerned about the quality that the labels guarantee.

The answers regarding some opinions of Croatian consumers highlighted that they value quality products independently of the label. Nearly 90% of those interviewed agreed or strongly agreed that those products have a good taste. The interviewees also agreed that they are safe and that labels are reliable, even though in this respect the level of conviction was lower since those who strongly agreed diminished while those who neither agreed nor disagreed increased (32% and

15%, respectively). Quality-label products are also considered better than those not bearing labels, despite a large number of “neither agree nor disagree” answers (26%) and 10% of the interviewees believing that labelled products do not differ from unlabelled ones.

A widely shared opinion was that labels should be used to ensure a better performance of Croatian food products on foreign markets and to distinguish Croatian autochthonous food products of the Croatian tradition. Labels should also be used to increase the sales of Croatian food products on the local seasonal tourist market.

The reasons for not buying more labelled products are reported in Table 32..

Table 32 – Croatian consumers: main reasons limiting the purchase of more quality-label products

Reasons	**Percentages**
Price	16%
Products without certificates are better	0
Products without certificates are safer	1%
I don’t like the taste	1%
I don’t trust special-quality products labels	1%
They are difficult to find	11%
Poor offer	27%
Poor promotion and information	33%
I don’t know where to buy them	6%
Other	4%

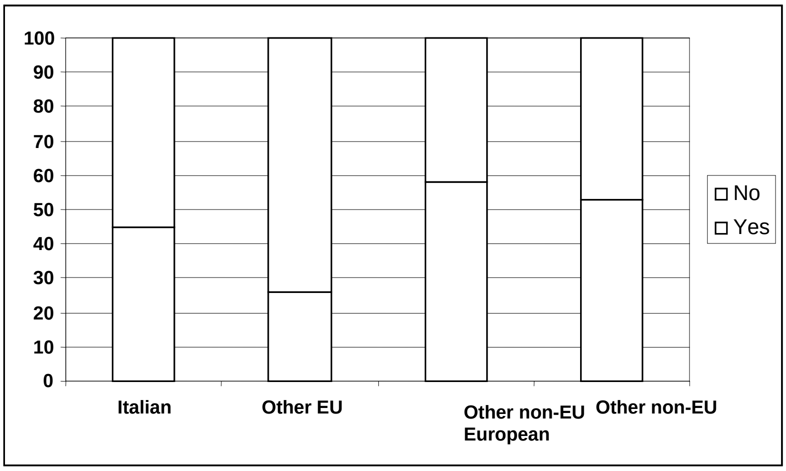
*More than one answer provided by interviewees

The main reason stated was poor promotion of and information about the “Croatian quality” and “Croatian creation” logos, followed by poor offer of products and difficulties in finding them. “Other” reasons, mainly the insufficient visibility of logos on products, were also cited. Price was another considerable problem, whereas none of those interviewed believed that conventional products are better than organic products.

3.8.2. Tourists

About 50% of tourists were acquainted with the “Croatian quality” and “Croatian creation” logos. “Other non-EU European” citizens were those better informed.

Diagram 18 - Tourists by nationality: level of acquaintance with the "Croatian quality" and "Croatian creation" logos



*Relative frequencies

When tourists were asked to indicate what, in their opinion, the "Croatian quality" and "Croatian creation" labels guarantee, almost 50% correctly identified the definition of "Croatian quality". Even better results were obtained for "Croatian creation" (66% of correct answers).

Table 33 – Tourists: "What do the "Croatian quality" and "Croatian creation" logos guarantee?"

	Croatian quality	**Croatian creation**
Definitions	**Relative frequencies**	**Relative frequencies**
That the raw materials originate from Croatia	6%	13%
That product quality meets Croatian regulations	19%	0
That the quality characteristics of products, produced in Croatia, meet international standards	42%	1%
That the products and packaging are designed by Croatian designers	9%	5%
That they are Croatian autochthonous products, resulting from Croatian tradition, research and technological innovation, and that their quality characteristics meet high international standards	14%	66%
Other (specify)	0%	0%
I don't know	25%	15%

Tourists mentioned numerous sources of information about labels: the role of the media is predominant (42%), followed by friends and colleagues (26%) and promotional sales (24%). The media seem to be a particularly important source of information for non-EU tourists, while for Italian and other EU tourists, promotions and/or friends are particularly important.

When asked to qualify their level of information and knowledge about Croatian food labels, 64% of tourists said it was low (64%) or superficial (18%), while 18% felt it was high or quite high. Among the latter there were only Italian and non-EU European citizens, while none of the non-EU European tourists held this conviction.

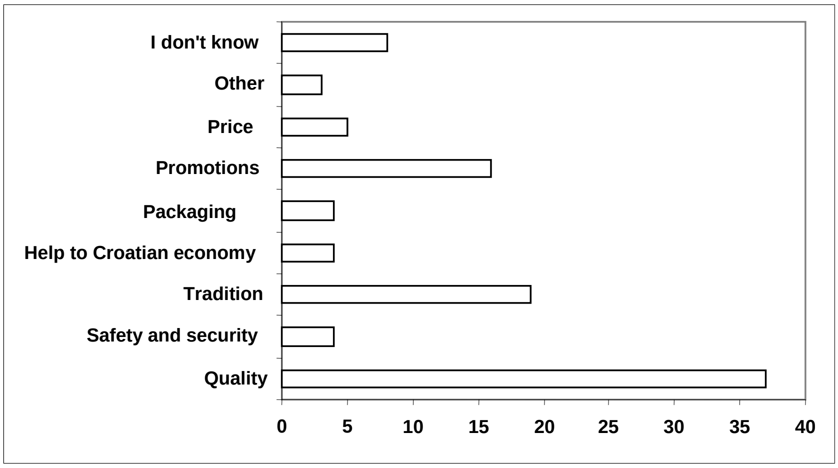
Although the number of tourists acquainted with the quality labels was quite high, far fewer had purchased the products or intended to do so. Indeed, only 50% of those acquainted with the two labels, or 25% of the whole sample, had purchased products or intended to do so. Their actual number is probably lower, since tourists do not easily distinguish labelled from unlabelled Croatian products, as demonstrated by the 10% who erroneous thought they had bought quality-label products (e.g. "Sirko" cheese), and the 4% who said they had bought quality-label products in open-air markets, where they are not in fact sold. In fact, even though the majority of tourists said they had bought certified products because they guarantee quality (58%), a desire to taste traditional local products was in second place (30%).

Table 34 – Tourists: purchases of labelled food products during their vacation in Croatia by nationality

Nationality	Yes	I don't know	Total
Italian	34%	66%	100%
Other EU	50%	50%	100%
Other non-EU European	81%	19%	100%
Other non-EU	38%	62%	100%

Tourists were also found to be particularly influenced by promotional sales, which seemed to orient some 25% of tourist in an unknown market. This was especially true of EU citizens, while non-EU citizens were more concerned about safety and security and price.

Diagram 19 – Tourists: main reasons for buying quality-label certified food products



*Relative frequencies, more than one answer provided by interviewees

Those who said they are influenced by quality labels and product origin when buying food accounted for 45%, those not influenced were about 15%, and 25% said they were indifferent.

The tourists interviewed were more likely to consider the “Croatian quality” and “Croatian creation” labels reliable than were Croatian consumers. As regards product safety, those who strongly agreed (7%) were fewer than those who neither agreed nor disagreed (34%).

For 35% of tourists, the price of Croatian labelled products is too high, while 58% neither agreed nor disagreed.

Even though tourists seemed to be strongly convinced that Croatian quality-label products are better than conventional Croatian products, more than 55% were not certain that Croatian food products were as good as those they purchase at home, especially EU tourists.

As regards the distribution and taste of Croatian quality-label products, the tourists expressed extremely positive opinions (66% strongly believe that distribution of Croatian labelled products is well organized and 73% strongly agreed that they have a good taste). Product packaging elicited mostly negative opinions.

The main reasons that limited the purchase of more of these products are listed in Table 35.

Table 35 – Tourists: main reasons limiting the purchase of more quality-label products in Croatia

Main reasons	Percentages
Price	11%
Products without certificates are better	0
Products without certificates are safe	1%
I don’t like the taste	0
They are difficult to find	4%
Poor offer	37%
Poor promotion and information	32%
I don’t know where to buy them	15%

*More than one answer provided by interviewees

Again, difficulties in finding the products and poor promotion and information were mentioned as the main obstacles to greater purchases of products with specific characteristics.

Finally, tourists were asked to indicate some food products that they had purchased and consumed and in which they had found some unique characteristics. It is interesting to note that only one interviewee mentioned a Croatian PDO product, cheese from the island of Pag, although some 10% of interviews where carried out on that island, and others took place in the production areas of other Croatian PDO products. Tourists prevalently indicated Croatian spirits and products of the Croatian food-processing industry, mainly milk derivatives (Dukat products) and delicacies made with Mediterranean products, like olives, anchovy and figs (SMS Products).

The fact that no tourist recognized the Croatian PDO products is not surprising, given that they bear no logos that distinguish them from other food products.

3.9. Consumer awareness of Croatian protected geographic indication products

3.9.1. Sample description

The questionnaire on PDO, PGI and TCG food products was conceived as a short interview to explore the level of information and knowledge of Croatian consumers about those products. A sample of 125 Croatian consumers living in Zagreb and Split was surveyed. No selection criteria were adopted except that the interviewee is the family member responsible for the food shopping.

The sample composition is shown in the following table.

Table 36 – Sample composition

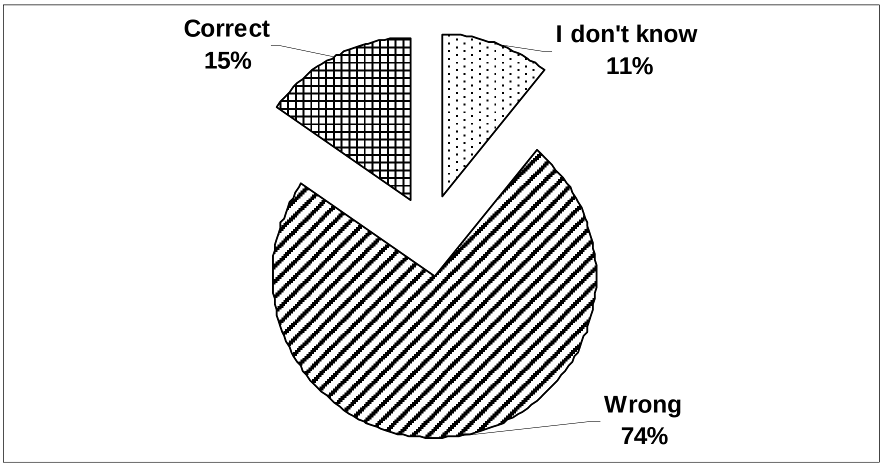
Gender	22% male, 78% female
Age	53% between 25 and 45 years, 47 % between 46 and 65 years
Job of interviewee	9% self-employed professionals, 59% office workers/teachers, 9% artisan/retailer, 9% housewife, 1% students, 13% other
Job of family head	30% self-employed professionals, 45% office workers, 13% artisan/retailer, 12% other
Family composition	13% unmarried, 30% children < 10 yrs, 22% children > 10 yrs, 10% other adult family members
Education	1% primary school/no school, 60% High school, 38% University degree, 1% master/Ph.D.

3.9.2. Results

The answers to the question "Have you ever heard about Croatian PDO, PGI and TCG food products?" show that almost half of those interviewed were acquainted with them[39]. Those who answered in the affirmative were asked to mention some Croatian PDO and PGI products. The results are shown in the following diagram.

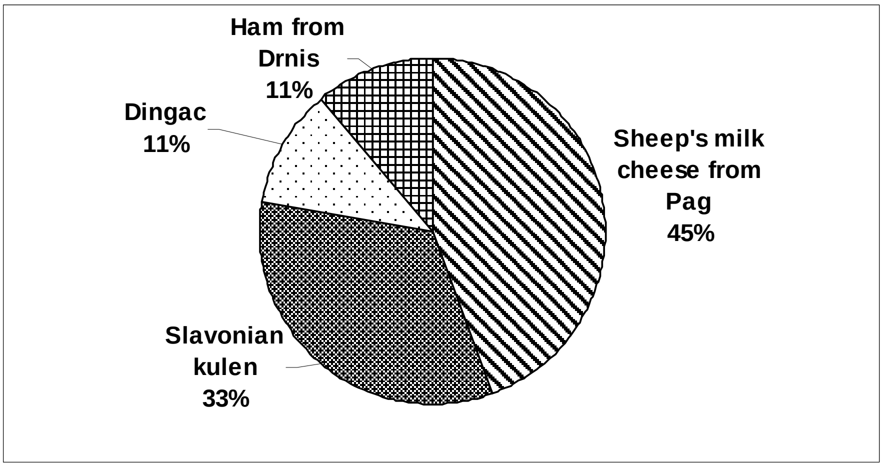
[39] Given the legislative complications and the lack of a logo distinguishing these products, it is surprising that 52% of interviewees said they were aware of Croatian PDO and PGI products. Once again the sample characteristics are important: all interviewees lived in large cities and had a secondary school (60%) or university (38%) education, suggesting that the sample may have been made up of better-than-average informed consumers.

Diagram 20 – Proportion of correct answers to the question “Please indicate some Croatian PDO, PGI and TCG products”



As shown in Diagram 20, those who actually knew some Croatian PDO, PGI and TCG products declined to 8% (or 15% of those who answered the previous question in the affirmative), as the majority of those who said they were aware of these products gave partially or completely incorrect answers.

Diagram 21 – Croatian PDO, PGI and TCG products mentioned by responders

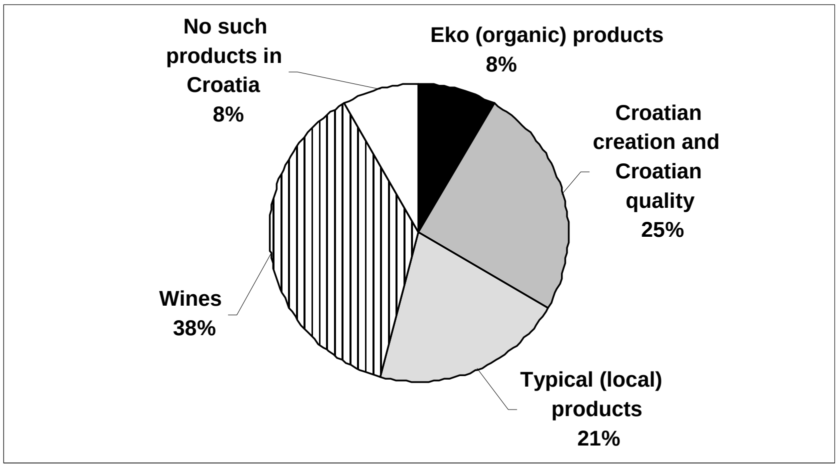


*More than one answer provided by interviewees

The only real PDO, PGI and TGS products mentioned by the consumers are reported in Diagram 21. “Dingac” wine is still registered as a PGI product according to the earlier discipline. However, none of those interviewed mentioned more than two, and none could tell the difference between the PDO and PGI logos or indicate which logo the products they had mentioned bears.

The analysis of the wrong answers also provided interesting results, in that it showed that many Croatian consumers confuse the PDO and PGI marks with controlled origin designations. In fact, those who mentioned wines as PDO and/or PGI products were predominant. The second group of wrong answers regarded the "Croatian quality" and "Croatian creation" logos, which are granted to many food products by the Croatian Chamber of Commerce and were considered by consumers as equivalent to the PDO and PGI labels.

Diagram 22 – Wrong answers to the question "Please mention some Croatian PDO, PGI and TCG products"



*More than one answer provided by interviewees

The third group of answers shows that Croatian consumers often confuse PDO, PGI and TCG products with specific, typical local products. These data evidence both a great confusion about terms such as autochthonous, typical, and original, and a scarce level of information about the certification process that leads to the granting of special-quality labels. Some interviewees confused PGI, PDO and TSG products with organic products, and others stated that the were acquainted only with some foreign PDO and PGI products. Some answers contained both correct and incorrect elements: among the former, sheep milk cheese from Pag, Slavonian kulen, wine from Peljesac (Dingac) island and Istrian ham.

3.9.3. Concluding remarks

A great confusion was seen to reign with reference to the meaning and import of the various food quality labels. Among the several logos present on the market, the PDO, PGI and TSG labels are not well known. The reasons lie both in legislative confusion and in the lack of logos that would help distinguish visually Croatian PDO, PGI and TSG products. The confusion was generated by the introduction by the Croatian Chamber of Commerce of the collective labels "Croatian quality" and "Croatian creation", which consumers frequently consider as equivalent to the PDO, PGI and TSG labels. The certification process leading to label award is also little known, as consumers confuse local, typical (but uncertified) food with PDO, PGI and TSG products. Greater information also seems to be required for special-quality food than for organic products.

Label proliferation risks to cancel the advantages of organic products. Consumers should be correctly informed about the meaning of each label, not all of which have the same importance and provide the same guarantee. Secondly, the function of the certification process and logos should be better explained to help consumers distinguish among the many different terms (e.g. organic, green, authentic, original, typical food) that are often used haphazardly. The introduction of visible logos on Croatian PGI products is of primary importance. Finally, organic, special-quality and local products could be brought under a single logo guaranteeing all those qualities, providing a greater added value to products and very high-quality food to consumers.

3.10. Interviews to distributors and producers

3.10.1. Sample description and results

The companies that participated in the study and their main activities are listed below.

Table 37 – Companies and their main activities

Name	Main activities
DM DrogerieMarket	retail trade of cosmetics, drug-store and food articles
Irokez distribucija	import and distribution of organic products
Biopartner d.o.o.	import of organic fertilizers used in organic food production
Kalumela	retail trade of cosmetics and food articles, specialized shops of "healthy food" and organic food, production of organic food, educational centre
Kerum	retail trade of food, supermarket chain
Candor d.o.o.	import of inputs for organic agriculture, non-certified organic producer
Bio Vega	import, distribution and retail trade of organic products (Bio&Bio Shops)
Zdravi bili	retail trade of "healthy food" and organic food and cosmetics, macrobiotic restaurant
EkoDalmacija	cooperative of 12 producers of organic food
Eko -projekt Mavrović	producer of organic food, - 300 ha, 206 organic, 94 in conversion (Eko Imanje) processing and educational and research centre (Eko projekt)

The study involved some important producers and distributors of organic food products and other inputs for organic farming. No chain stores except "Kerum" agreed to participate. Even though this fact may be considered as an indication of the relatively small importance of organic food (and special-quality products) for these stores (which still prevalently sell conventional food products), their contribution would have been important, especially to gain information on the market potential of special-quality products.

The participating companies often carried out more than one activity, e.g. distribution and production, processing, education and training or production and processing. The sample included four “pure” traders - DM Drogerie Market, Kerum, Irokez distribucija and Biovega – the last two dealing exclusively with organic products. EkoDalmacija and Ekocentar Mavrović are producers but the latter is also the largest processor of organic food in Croatia and runs important educational and training programmes. Biopartner and Candor are importers and distributors of non-food organic articles and are entering organic food production. Kalumela and Zdravi Bili are specialized shop chains also involved in education, food catering and, in the case of Kalumela, processing.

No exporter participated due to of the absence of registered exports of organic food.

The variety of activities in which companies are involved permitted to collect and highlight the needs and reasons of different interest groups.

The incidence of organic items in the total offer and/or sales of companies varies. For DM Drogerie Market and Kerum it is low or very low (8% and 1% respectively), while in the case of Zdravi bili and Kalumela, two specialized “healthy food” retailers that do not exclusively sell organic food, it accounts for 90%. All the other companies deal exclusively in organic products. Overall, the participating companies encompass food (fresh and processed), organic cosmetics and cleaning products, inputs for organic farming and other organic products.

The company representatives were first asked to mention all the positive and negative characteristics of organic food products. All stated that these products are healthier, safer and more nutritional than conventional products, and that production processes do not have an adverse impact on the environment. The majority said that organic food has no negative characteristics, and a small number that price may be considered as its discouraging (not negative) characteristic.

The interviews helped highlight the main characteristics of the Croatian organic food market and provided insights into the distribution chain. Supermarkets and hypermarkets were reported to have a growing role, replacing small specialized stores. All the main supermarket chains operating in Croatia, e.g. Konzum, Billa, and Kaufland, offer organic food.

It also emerged that an analysis of distribution channels must distinguish between fresh (mainly fruit and vegetables) and processed products. Super and hypermarkets do not have a large role, if any, in selling fresh produce, given its high price and the fact that selling conditions do not allow to enhance product specificities. According to the producers interviewed, supermarkets also apply high margins, making organic products non competitive with conventional products.

For fresh fruit and vegetables, sales at the farm, specialized stores and open-air markets, where they exist (e.g. Zagreb, Bjelovar, Osijek and Vinkovci), are still the main selling places.

Producers complain of greater difficulties in supplying hotels and restaurants, highlighting that in that segment the pre-eminent requisite of food product is price.

Instead, for processed organic food products – both Croatian and imported –supermarket chains are the most important distributors. In this case, supermarkets and hypermarkets have replaced and surpassed small, specialized stores in both the quantity of products offered and prices. Still, most interviewees consider that small shops play an important role in the educational process of consumers as they guarantee direct contacts and informal personal relationships.

All retailers interviewed offer both Croatian and imported organic food. However, the proportion of imported organic food products in the total organic offer in Croatia is, without doubt, predominant. Here, too, it is necessary to distinguish between fresh and processed food. The presence of Croatian processed food products is very low and limited to only a few producers, whereas fresh fruit and vegetables are all Croatian so that national producers are not pitted against imported food.

Interviewees were asked to express their level of satisfaction with Croatian and imported organic food products. The following tables demonstrate a preference for imported organic food.

Table 38 – Level of satisfaction of producers and distributors with Croatian organic food

Level of satisfaction	**Relative frequencies (%)**
Low	20
Neither low nor high	60
High	20

While the level of satisfaction regarding Croatian organic food is rarely high and prevalently neutral, it is very high for imported products – mainly from Europe and Japan, but also from other non-European countries.

Table 39 – Level of satisfaction of producers and distributors with imported organic food

Level of satisfaction	**Relative frequencies (%)**
High	50
High – very high	33
Very high	17

To gain more detailed information, interviewees were asked to rate the different aspects of the marketing mix which includes both Croatian and imported organic food products. Table 40. shows once again the need to distinguish between fresh and processed food, because they present different levels of quality. While there is wide disparity in the ratings given to the quality of Croatian processed organic food, fresh fruit and vegetables obtained uniformly high ratings.

Table 40 – Ratings of the marketing mix of Croatian organic food products

Quality	Packaging	Price	Promotion	Distribution
high	low	neither high nor low	very low	neither high nor low
high	low	low	low	low
neither high nor low	low	neither high nor low	low	neither high nor low
low	low	low	low	low
very high fresh, low processed	low	high fresh, low processed	low	low
very high fresh, neither high nor low processed	low	Low	low	low

According to interviewees, the only negative characteristic of Croatian fresh produce, is their visual aspect which, contrary to their taste, does not always meet demand requirements. There is a diffused conviction among Croatian producers that organic fruit and vegetables should present poor visual characteristics that would guarantees their healthiness.

Particularly negative rating was given to the packaging and promotion of Croatian organic food products. Packaging is not only considered unattractive but often does not guarantee the maintenance of products. Prices and distribution of Croatian organic food were rated slightly higher but still in the negative sign.

Table 41 – Ratings of the marketing mix of imported organic food products

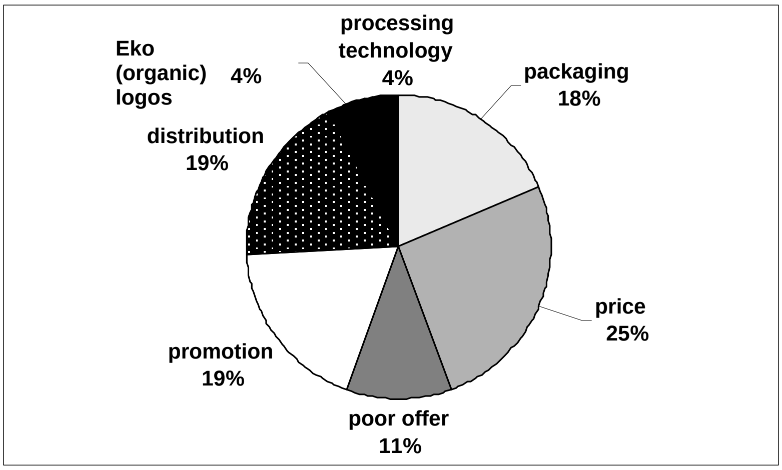
Quality	Packaging	Price	Promotion	Distribution
high - very high	high - very high	low	very low	low
very high	high - very high	low	low	low
high - very high	neither low nor high	neither low nor high	neither low nor high	high
very high	high - very high	neither low nor high	neither low nor high	neither low nor high
very high				
high	high	neither low nor high	neither low nor high	neither low nor high

All aspects of imported products were, on average, rated higher. In this case, the evaluation concerns exclusively processed food, since all fresh fruit and vegetables sold on the market are of Croatian origin. Table 41 shows that rating given to promotion, distribution and prices of imported organic products is quite low but still higher than for Croatian organic products.

Generally, the opinion of distributors was that given the equal quality of Croatian and imported food products, prices and packaging of imported products are much better while promotion and distribution still have to be significantly improved in both cases. The producers agree with most of those considerations and believe that the quality of their products as at least the same as the quality of imported ones.

The interviewees were then asked to indicate what they consider as the strong and weak points of Croatian organic products. Obviously more weak points were indicated.

Diagram 23 – Weaknesses of Croatian organic food products



*More than one answer was provided by interviewees

The two strengths of the domestic supply concerned its quality and, in the same proportion, the trust which Croatian consumers presumably have in national producers. The weak points of Croatian organic production were: distributional and promotional aspects, high prices and poor packaging. Diagram 23 shows, however, some new elements indicated by interviewees as the main weak points of domestic supply. These refer principally to the dimension and extension of domestic supply, both of fresh and processed organic food. The others include poor quality of the processing technology, which is considered as the main cause of a limited and inefficient supply, and the need to improve and simplify the Croatian Eko logo assignment process.

There were questions directed at collecting more detailed information about demand and, more generally, about the level of development of the Croatian organic market.

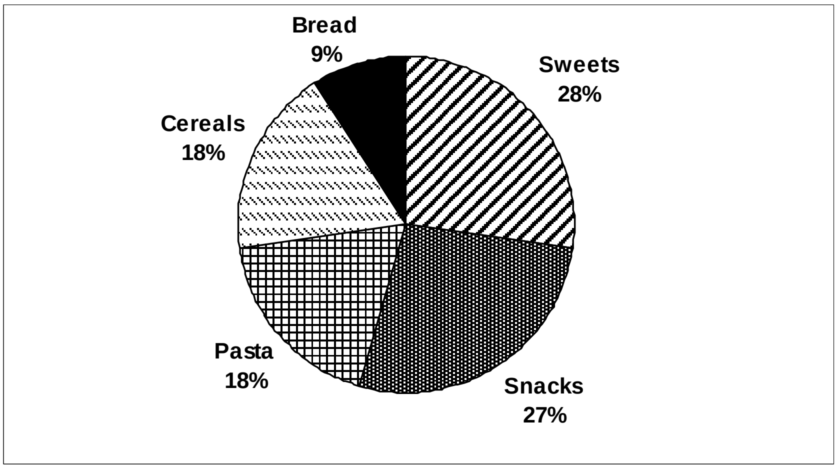
Some information about Croatian consumers of organic food was also obtained.

Data from interviews indicate that people with health-related problems are the main consumers of organic food in Croatia. Even though traders and producers believe that organic food should not be presented and advertised as a drug for sick people, this still seems to be the most frequent use of organic food in Croatia. This category of consumers is followed by those with a higher standard of living, who can afford the higher prices of organic food, and by those with a higher level of education, who pay more attention to food quality and to the impact of different production techniques on the environment. However, retailers confirm that is still very difficult to attract and convince young people to buy organic food. Also, many people who turn to organic food for health-related problems go back to conventional food once these problems are resolved. The organic demand in Croatia is characterized by a difficult entry and easy exit.

One of the main reasons for this seems to be the particularly low level of consumer information concerning organic food, described as very low in 30% of cases and low in the remaining 70%. In fact, all interviewees considered information and education of consumers as the main step to be taken to support the development of the organic food market in Croatia.

An interesting aspect of Croatian demand is its structure. Interviewees were asked to indicate which conventional products Croatian consumers would easily substitute with organic food and which products they would be reluctant to substitute. While no particular reluctance is registered, some interesting results were found concerning the structure of demand.

Diagram 24 – Demand for organic products in Croatia



*More than one answer was provided by interviewees

In Diagram 24 we see that the main organic food products bought by Croatian consumers are sweets and snacks. Those products have the best sales on the Croatian market and are followed by pasta, cereals and bread, while fresh fruit and vegetables or meat were not indicated by interviewees. On the contrary, difficulties were mentioned in some cases in the placement of fresh organic products. This is mainly due to the trust Croatian consumers place in the fresh fruit and vegetables sold in open-air markets. Regarding fresh fruit, vegetables and meat, preferential distributional channels are still direct sale at farms, while the other channels are marginal.

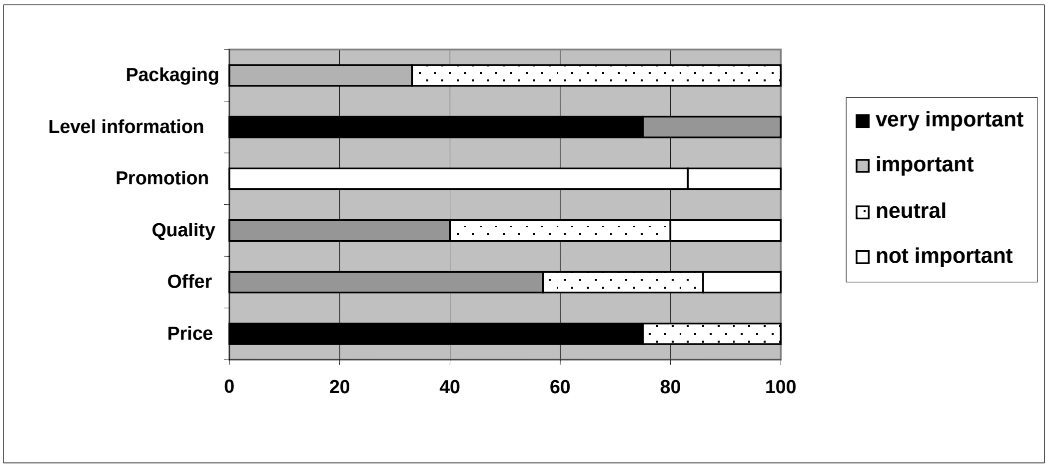
The consistent demand for organic snacks and sweets can be explained by the fact that Croatian consumers often cannot afford a complete organic menu and try to improve their diet at least with these products. In other cases, people who would like to eat organic food often encounter reluctance by their families, who do not wish to replace their usual meals with these products so they buy organic snacks only to eat away from home. Some people state that cooking organic food takes too long.

Considering this, the interviewees were asked to evaluate the level of development of the market of organic food in Croatia. Some differences emerged between urban and rural areas. Even though the organic market in Croatia still has to be improved and developed in both areas, more than 60% of interviewees believe that the organic market is already growing in the cities (less than 40% believe it is still in early stages of development) while, according to more than 90% of responders, the organic market in rural areas is just beginning to develop. Even though development of the market and demand for organic food in Croatia is still circumscribed to urban areas, it was found that there are substantial differences among the different cities. The largest concentration of specialized shops is in Zagreb, followed by Split, Čakovec and Rijeka, while stagnation seems to characterize the area of Slavonia, where a large part of the Croatian organic food production takes place. On the other hand, stalls selling fresh organic food are not present at all in Dalmatia, but exclusively in cities close to their place of production (Zagreb, Osijek, Bjelovar, Vinkovci).

Interviewees believe that the quality of food is an important issue to Croatian consumers and therefore the long-term prospects for organic market development in Croatia are very favourable.

The main current obstacles limiting a more rapid development of the organic market were also identified. As shown in Diagram 25, producers and distributors believe that the greatest limitations are high prices and a low level of information to consumers.

Diagram 25 – Main obstacles to the faster development of the organic market in Croatia



*Relative frequencies

Interviewees stated that the current standard of life of most Croatian consumers does not permit them to purchase organic food products. At the same time, producers and distributors believe that consumers are badly and insufficiently informed about the characteristics of organic food. Since is unlikely that in the near future prices will fall significantly, consumer information and education are considered as the main action for supporting the development of organic food in Croatia. In this context, promotion should also play an important role.

A greater and wider offer would certainly stimulate consumers, who would have the possibility of substituting a higher number of conventional products with organic food articles.

Packaging should also be improved, while quality is felt to be reasonably satisfactory.

Finally, the interviewees were asked to indicate what they consider to be the main elements of an initiative aimed at stimulating the development of the organic food market in Croatia as well as the priorities Croatian organic food producers should make to improve the quality of organic food offer. Regarding the first question, results in the table below show once again how education, both of farmers (producers) and consumers should represent the first step in the development of the Croatian organic food market.

Table 42 - Main actions which could help to stimulate the organic market in Croatia

Action	Relative frequencies
Education of farmers and consumers	44%
Coordinated action concerning marketing of organic food which should involve all actors of the organic food chain; producers, distributors, consumers, ministries, educational centres and other subjects dealing with organic products	19%
Price control of organic food products	12.5%
Creation of associations and cooperatives of producers	12.5%
Increase the quantity and quality of supply	6%
Devising and adoption of specific and adequate supports and incentives for all actors (all segments) of the organic chain	6%

Those interviewed also highlighted poor collaboration between producers and the other figures of the organic chain, while development of the organic food market could only be guaranteed by a coordinated action. Coordination could be particularly important in improving the offer, thus guaranteeing a reduction of production and processing costs, a concentration of the supply and therefore a consequent reduction of prices, higher negotiating power on the market and improvement of marketing strategies. Some interviewees believe that prices of organic food should not be more than 20-30% higher than those of conventional food products, so these prices should decrease in order to meet demand potentials and requirements.

The Government should support all those actions, which are in the hands of producers and distributors, and should participate in some of the phases, stimulating both demand and supply. Information and education of consumers could increase the demand, while supply could be stimulated through the identification and adoption of specific and appropriate incentives and support meeting the specific needs of all actors of the organic chain.

Improvement of the Croatian organic supply presupposes, as seen in the following table, an improvement of both the quantity and structure of supply, and its quality. There is a need for more processed Croatian organic products not only to satisfy consumer demand but also to guarantee better revenues to producers. Considering the high costs and large quantities imposed by the processing industry, small producers should form associations and cooperatives for a better production and marketing of organic food products.

Table 43 – Main actions to improve Croatian organic supply

Action	Relative frequencies (%)
Increase the offer	21
Improve the quality of the offer	12.5
Processing	12.5
Creation of producer associations and cooperatives	12.5
Improve the certification process	8
Marketing actions to expand market	12.5
Improve all aspects of marketing mix	12.5
Stabilize the offer	4
Analyses of demand	4

Interviewees believe that all aspects of the marketing mix should be improved and highlight the necessity of improving and simplifying the certification process and assignment of the Eko logo. A need for closer collaboration with research institutes was also pointed out. These stakeholders and their services could play a particularly important role in devising strategies for organic production, while the potential demand as well as the nature of the actual demand for organic food products should be examined in detail for a fuller understanding of the issue.

4. PROPOSALS FOR A STRATEGY FOR CROATIAN ORGANIC, PDO, PGI AND TSG PRODUCTS

4.1. Introduction

Achieving what can be considered as one of the main objectives of Croatian agriculture policy - the improvement of quality of the agricultural offer and a better placement of high-quality food products both on national and international markets – requires an efficient marketing strategy. This can be successful only if the present situation is exhaustively analysed to obtain a clear picture of both the obstacles and opportunities for a development of this sector, an essential factor in identifying priority actions within the general marketing strategy. An efficient marketing process has first of all to identify clients' needs and only then can it offer of products and/or services which will satisfy these needs in the present, and anticipate the evolution of future ones (Peter, Donnelly, 1999).

The literature search and fieldwork included in the present study highlight different aspects, which have to be considered when devising a strategy for developing organic agriculture and other high-quality productions. The desk studies identified qualitative and quantitative characteristics of Croatian agriculture with particular attention to the high-quality food supply. An overview of the legislation governing organic agriculture and protection of the Geographical Indications and Denominations of Origin has also been made. These results were integrated with the ones from the fieldwork, thereby shedding light on those aspects which official statistics do not reveal - habits of consumers concerning the purchase of food products, their level of knowledge and information concerning organic farming, Croatian PDO, PGI and TSG products and other food labels, trust in food labels and an estimate of demand for Croatian organic food; all aspects of crucial importance for devising a marketing strategy for organic and high-quality food productions. Other characteristics of the competitive, economic, social and political environment were identified by interviewing the key stakeholders of the organic sector: producers, importers, distributors, marketers and administrators.

4.2. Proposals for a strategy for Croatian organic and PDO, PGI and TSG products

4.2.1. Organic market

Elements necessary to describe the current situation of marketing of organic farming products in Croatia were mainly gathered by interviewing consumers – Croatians and tourists – and other relevant stakeholders (producers, distributors, policy makers etc.). The main characteristics of both domestic and tourist demand are briefly reviewed here. Regarding the supply of organic food in Croatia, the current situation is presented by describing the strengths and weaknesses of different aspects of the marketing mix. Possible future actions are outlined by analysing opportunities and dangers, and some proposals for improving the present situation are advanced.

4.2.2. Demand for organic food in Croatia

In order to expand organic production, both the actual and potential demand on national and foreign markets first has to be considered. It is in fact necessary to understand the qualitative and quantitative characteristics of the demand and then devise a strategy to meet consumer requirements.

It was extremely difficult to accurately analyse the demand for Croatian organic products, as the offer is either represented by imports such as processed food products, or by Croatian products, like fresh fruit and vegetables, which are poorly distributed on the national market. Croatian consumers generally show a very high interest in food quality. However, other elements, such as price, also influence purchase. The fears of Croatian consumers mainly regard the healthiness and safety of food products and these fears are only marginally allayed when purchasing organic or other quality-label products.

Our interviewees expressed an extremely strong interest in Croatian quality products. They seem to believe that these products are better than imported ones mainly because in the past the Croatian market was filled by low-quality imported products.

Even though a surprisingly large number of Croatian consumers were acquainted with organic food, they were not well informed about food definitions and were unable to distinguish between terms such as “healthy”, “green”, “domestic” and “organic”. A low level of acquaintance with the certification process and mistrust in certificates was also revealed.

The main reasons which limit the demand for organic food products are lack of information about the characteristics of organic products, about labels and about ways to recognize organic products. Demand is also limited by the standard of living, which does not permit most Croatian consumers to purchase organic food products. Many consumers of organic foods only purchase meals to eat away from home, so that the organic food articles most frequently sold in Croatia are snacks and sweets.

We found that not many tourists buy organic food in Croatia. Consumption of organic food during holidays is low, especially when compared to tourists’ consumption of organic food at home. However, tourist demand and its potential could be better estimated by analysing consumption in restaurants and hotels.

Information about organic farming is as superficial among tourists as it is among the Croatian consumers. Furthermore, tourists should be informed about Croatian labels and compliance with international standards of Croatian organic food. Promotion and distribution should, in this case, have a particular importance, since tourists are usually eager to taste autochthonous products and local specialties, and are generally very interested in the quality of food products which are difficult to find.

Tourists seemed satisfied with the quality of Croatian food products and a significant number of them also expressed a desire to purchase them at home. Italian tourists and citizens of former Yugoslav countries are important consumers of Croatian food products as they are usually well informed about the supply and certification of Croatian food. This information should certainly be kept well in mind when identifying the main export markets for Croatian organic foods.

4.2.3. Supply of organic food in Croatia

At present, organic farming production in Croatia accounts for a marginal share of the general agricultural production. The offer of Croatian organic food is represented by low quantities and a narrow range of products, and this is particularly true regarding processed food. Most processed products are imported and very few domestic producers are present on the shelves of Croatian stores. On the contrary, the supply of fresh fruit and vegetables is exclusively national, but only distributed in markets close to the production areas. Great differences in quality were registered between fresh and processed food products; Croatian processed products were considered worse than imported ones, while fresh fruit and vegetables were considered of exceptional quality. The prices of Croatian organic food are rather high when compared to Croatian conventional food products and to imported organic products. Besides price, the other factors which hamper development of the organic market in Croatia are distribution and promotion.

Here below we consider the main strengths and weaknesses, as well as opportunities and threats for the Croatian organic supply and propose some priority and strategic actions.

Strenghts

Elements which are external to the supply, but can be considered as strenghts of Croatian organic production regard, principally, the characteristics of natural resources - extensive uncultivated and pasture land, large protected areas (10% of land), great biodiversity, and the existence of numerous autochthonous plant and breeds. It also has to be mentioned that since 2001 a legislative framework exists which, although with some difficulties, governs all aspects of organic production and agricultural and food products in Croatia. Since 2002, a special logo, the Eko logo, distinguishes Croatian certified organic products from the remaining agri–food products. As to the support policy, higher subsidies have been established for organic rather than conventional productions.

The strenghts of Croatian organic supply concern, in the first place, the high quality of fresh fruit and vegetables, particularly appreciated by Croatian distributors and consumers. The composition of the organic supply indicates that some interesting and traditional productions, which could guarantee competitive advantages on foreign markets, have already been introduced (organic fish breeding, vineyards, herbal plants etc.).

Another important strong point concerns the intellectual capital involved in organic farming, which has attracted a high number of young and educated people from urban areas.

Organic products have already entered Croatian supermarkets and are no longer offered exclusively in specialized stores. Eko stands selling fresh fruit and vegetables in open markets are already operative in five Croatian cities.

Weaknesses

The expansion of organic food production is greatly limited by the low level of information among the public about organic farming. Prejudices still exist about organic food and an important share of consumers still believe that organic products are only for the rich and sick.

Political and legislative impediments also directly influence the expansion potential of Croatian organic supply[40]. Among these, the fact that Croatian legislation is not completely harmonized with EU legislation prejudices the entrance of Croatian organic products on EU markets. One particular weakness concerns the control and certification process in Croatia, which needs to give more authority to control and certification bodies. Credibility of the Croatian Eko logo must be increased both among national and foreign distributors and consumers.

The competitive environment is characterized by high imports of organic food judged as better and cheaper and by the entrance of foreign supermarket chains on the national market which favour their domestic products on the shelves.

One of the important weaknesses of the Croatian organic supply is the need to train producers in all aspects of marketing and in specific topics concerning organic production. Organic farming in Croatia lacks almost all the necessary inputs (from seeds to protected products). There are also very few people specialized in organic primary products both up and downstream.

The composition of the Croatian organic supply shows that scarce importance has been given to promoting those cultures that could permit the differentiation of Croatian organic offer from that of other European countries. The Croatian organic offer concentrates in fact on "standard" agricultural products (apples, soybean, cereals, chicken etc.) and considering that prices of Croatian organic products are even higher than those of their foreign competitors, it is possible to state that they are non competitive both on the domestic and foreign markets.

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[40] Obstacles to development of organic agriculture in Croatia originate also from policy and administrative weaknesses.Producers complain that no specific and differentiated support schemes and subsidies have been granted for organic agriculture, while this kind of farming should at least be supported with reference to specific initial costs and rewarded for their contribution to environmental quality. More efficiency, and reduction of administrative times are also requested with reference to all aspects; from enrolment in registers of producers in organic production, to certification process and assignation of the Eko logo.

The quantity of domestic production is low and this is particularly true regarding the very few domestic processed products. The quantities produced and transformed are not sufficient to meet domestic demand and certainly do not reach the necessary critical mass with which to enter foreign markets. The limited quantity of organic productions is also an obstacle for organic producers to enter schools, hospitals and restaurants, since these consumers require a consistent, continuous and uniform supply. The quality of processed products is low and they cannot qualitatively compete with imported products, while fresh fruit and vegetables are not usually competitive due to their poor appearance

Promotion of organic food products is characterized by isolated initiatives, mostly independent from producers, and the organic offer in Croatian supermarkets and specialized stores still leaves consumers' bags empty. Fresh fruit and vegetables are only distributed close to the area of production (the north-east) and are not sold in large parts of the Country (in particular, coastal areas).

Another important weakness of Croatian organic production is the absence of collaboration among producers, which would be the easiest and quickest way to increase the quality and quantity characteristics of the offer, and to integrate more phases of the supply chain within the farms themselves.

Opportunities

Some opportunities exist for the expansion of organic production in Croatia which are external to the sector. The most important concerns the general and global increase of demand for organic food, partially due to an increased awareness of environmental pollution and of the concept of sustainable development. Another is related to the seasonal tourist market. Other opportunities arise from the characteristics of natural resources, which leave great space for an increase and qualitative improvement of the domestic organic supply.

Opportunities to be exploited include the possibility of unifying organic production and numerous typical, autochthonous local productions. The idea is to create high-quality products guaranteeing freshness, typicality, and adoption of good agricultural practices. This would make it possible to turn to a higher share of consumers; both those interested in purchasing organic and safe food, and those interested in purchasing national products. It would also help to place domestic offer on foreign markets. In fact, the diversification of the Croatian offer is one of the main prerogatives for entrance on foreign markets.

The freshness of locally produced fresh fruit and vegetables, if opportunely presented and guaranteed, could ensure higher recompenses for producers. Cooperation and collaboration among producers, processors and distributors is maybe the biggest opportunity for Croatian organic supply. This cooperation could be facilitated by the current concentration of producers in limited areas and could enhance their interaction with other figures of the agri-food sector (input producers, industries, etc). Cooperation would guarantee a concentration of the offer, investments and improvement of all phases of the organic supply chain and of all aspects of the marketing mix of Croatian organic food. It is also an opportunity for producers looking for new outlets – foreign markets, schools, hospitals, restaurants, hotels etc. – as this way the necessary critical mass of production would probably be reached.

Other important opportunities for Croatian organic food regard development of eco and food tourism.

Risks and threats

The main external risk for Croatian organic farming concerns the negative effects of globalization which, as for other sectors, increases competition and makes it daily more difficult for producers to be competitive both on local and foreign markets.

The structure of Croatian offer has to be differentiated and innovated, otherwise this will seriously prejudice its opportunity of finding an outlet in foreign markets. If domestic producers do not realize the need to develop typical, local, autochthonous organic productions, their products will have great difficulty in entering these markets, especially considering the high prices.

The badly regulated distribution process poses a great threat for domestic organic production, as it still allows the entrance of low-quality (and low-price) foreign products, which compete with national products on the same shelves. Considering both the importance of price for Croatian consumers and their low standard of living, competition from foreign products is a particular threat for national producers.

Another great risk is that subsidies may encourage not only the expansion of productions, which do not meet consumer requirements but also primary production without considering the other segments of the supply chain. There is also a risk that producers would look to their own personal interests and annul the benefits that cooperation could bring. It is difficult to believe, in fact, that without cooperation and pooling of the offer, the critical mass of the offer necessary to approach new outlets will be reached, At the same time, cooperation could enhance greater integration within the supply chain as well as more resources for the various aspects of marketing.

4.2.4. Overall marketing strategies

An efficient marketing strategy needs to focus on all the aspects mentioned above. Clearly, selling organic products is a precondition for the survival of organic producers; product strategies thus deserve special attention.

Market penetration strategies, directed at raising sales among habitual clients, could be carried out in different ways. Particular importance should be given to more consistent investments in advertising highlighting the quality characteristics of organic food products while special offers and other types of promotions regularly used for conventional food articles should also be introduced for organic food.

It is absolutely necessary to improve the process of infiltration of organic food articles – fresh fruit and vegetables included - in “regular” supermarkets and in open markets where food is mainly purchased.

Better and more attractive packaging is an explicit request from consumers.

Diversification of the offer and introduction of innovative products (product development) incorporating more services – semi-prepared meals, products certified both as typical and organic or local and organic - should all guarantee that in a relatively short space of time, consumers bags can be filled by a large amount of organic food. The creation of typical Croatian organic products and the introduction of traditional and authentic productions is necessary if domestic production is to beat foreign competition.

Considering the improvement of both promotional and distributional aspects, the creation of collective “Croatian organic food” brands should be encouraged as it would pool the national offer and make it more recognizable.

The identification of methods and strategies which will allow price reduction is of primary importance and, once again, pooling among producers seems to be critical for achieving this result.

Strategies of market development, aimed at providing new outlets for Croatian organic producers, have to address the needs of different groups of potential clients; tourists (seasonal tourist market), schools, restaurants, hotels and, finally, foreign markets. Investments in advertising should be particularly consistent in this case, in order to induce these new categories of consumers to convert to organic food. Tourists should be better informed about Croatian high-quality certificates through promotional material, during news programmes in their language and, regarding tourist consumption, demand should be stimulated by the offer of organic meals in hotels and restaurants.

The introduction of organic food in schools and hospitals could also be stimulated by public procurement and by promotional activities such as informative brochures and advertising.

It seems evident, once again, that the main action of producers should consist in establishing an efficient production network. If new outlets are to be achieved, then both the quantity and quality of the offer have to be increased and only collaboration among producers and their association can enable them to increase and differentiate the supply, with particular attention to processed products. A collective approach could also ensure better availability of financial resources, which are necessary to improve all aspects of the marketing mix especially if new, big and competitive outlets are to be reached.

Recognizable collective marks are especially important for the tourist industry and foreign market, while for restaurants, hotels, hospitals and other institutions, distributional aspects (such as guarantees concerning continuity and reduction of transport expenses) have primary importance.

4.2.5. Special quality (PDO, PGI and TSG) products

Devising a strategy for the development of Croatian special quality (PDO, PGI and TSG) products requires, first of all, a clear and well-defined legal framework.

With the adoption of the Food Act, in 2003, all responsibility for the protection of indications of origin and geographic indications passed from the State intellectual property office to the Ministry of Agriculture, Forestry and Water Management, but the absence of ordinances and rules, which should have followed the Act, makes it still inoperative.

Currently, only seven Croatian food products have a Protected Geographic Indication. The offer of PDO, PGI and TSG products in Croatia is very low and unstable and the quality of productions, due to handcraft production techniques, is inconsistent. No visible logos are used to distinguish these products from uncertified ones, and it is almost impossible to find them in supermarkets.

The level of knowledge of Croatian consumers about Croatian PDO products is extremely low and great confusion reigns regarding the meaning of the terms “autochthonous”, “typical” and “local”. Consumers were particularly confused when the Croatian Chamber of Commerce introduced the “Croatian quality” and “Croatian creation” marks. In fact, consumers frequently equate those logos with the PGI, PDO and TSG marks.

The weakness of the Croatian offer of special-quality products is epitomized by low offer, especially concerning the number and quantities of certified products, which mainly cover the demand of areas close to the production site. The absence of clearly visible logos on such products makes it difficult to know about their existence and allows numerous products with similar names to replace them in supermarkets. Promotion of these products is almost non-existent.

Once the whole legislative framework is in place, there is certainly a high potential for the development of this sector of agricultural production. Particularly regarding the domestic demand, the analyses carried out have shown that Croatian consumers are greatly concerned about the domestic origin of raw materials and wish to have guarantees about food origin and quality.

Cooperation among producers will, once again, assume crucial importance in this respect and the absence of their collaboration is one of the main risks, which could hamper the creation and supply of a sufficient quantity and quality of these products.

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http://www.europa.eu.int/scadplus/leg/en/lvb/121090.htm. Labeling. presentation and advertising of foodstuffs;

http://www.europa.eu.int/scadplus/leg/en/lvb/121096.htm; Certificates of specific character;

http://www.europa.eu.int/scadplus/leg/en/lvb/121097.htm; Protected geographic indications and designations of origin;

http://www.europa.eu.int/scadplus/leg/it/lvb/12118.htm. Produzione biologica dei prodotti agricoli e delle deratte alimentari;

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APPENDIX 1

Table A.1 - List of Croatian Organic Producers (last updated: 17/03/2004)

IVKA SEVER	Zagreb
“BUTIĆ”	Zagrebačka
Proizvodnja, trgovina i usluge d,o,o,	
RATKO SUMAN	Vukovarsko-srijemska
TOMO JEŽOVITA	Osječko-baranjska
DAVORIN JAKOVINA	Požeško-slavonska
ŽELJKO TRALIĆ	Vukovarsko-srijemska
GORAN GUSAK	Osječko-baranjska
PPK “VALPOVO” d,d, Valpovo	Osječko-baranjska
Poljoprivreda d,o,o, PC Brođanci	
MEDVED DRAGICA	Međimurska
OREHOVEC BERNARDA	Međimurska
KRAJAČIĆ IVAN	Varaždinska
VRESK FRANJO	Međimurska
SABOL JOSIP	Međimurska
PANIĆ NADA	Međimurska
POSEL VLADO	Međimurska
ŠPIRANEC BRANKO	Koprivničko-križevačka
“EKO IMANJE MAVROVIĆ” d,o,o,	Požeško-slavonska
za poljoprivrednu djelatnost	
“IVAN & LUKA”,	Brodsko-posavska
obrt za poljoprivrednu proizvodnju	
FRANJO PUKLIN	Krapinsko-zagorska
MILAN PASTUOVIĆ	Bjelovarsko-bilogorska
LOVRO KRNIĆ	Karlovačka
BRANKO KOKIĆ	Osječko-baranjska
”ŠMIT” UZGOJ KOZA, vlasnik NIKOLA LONČAR	Ličko-senjska
STJEPAN GUMBAS	Osječko-baranjska
FRANJO LEHKI	Osječko-baranjska
DAMIR ROSIPAL	Požeško-slavonska
IVAN PELIN	Osječko-baranjska
IVAN BRBATOVIĆ	Osječko-baranjska
MONIKA MIJAKOVIĆ	Vukovarsko-srijemska
POLJOPRIVREDNO-TURISTIČKOG OBRTA	
“BIOPHARM”, vlasnika Željka Krpan	
NADA IVANIĆ	Varaždinska
DRAGUTIN VOLARIĆ	Zagrebačka
BRANKO ČEGEC	Zagrebačka
MARICA MARJANOVIĆ	Virovitičko-podravska
JOZO TOLMAČEVIĆ	Osječko-baranjska
BOŽIDAR SRŠIĆ	Osječko-baranjska
MATO ORKIĆ	Vukovarsko-srijemska
ANTUN TRBUK	Vukovarsko-srijemska
ŽELJKO PRVČIĆ	Koprivničko-križevačka
ZLATA NANIĆ	Zagreb
MARIJAN MESIĆ	Zagrebačka
ŽELJKO KAMENSKI	Bjelovarsko-bilogorska
Poljoprivredni institut Osijek	Osječko-baranjska
ROZALIJA BAŠIĆ	Brodsko-posavska
KUM–RIS - AGENCIJA ZA RAČUNOVODSTVENE USLUGE	
DRAGAN KUMRIĆ	Osječko-baranjska
JADRANKA DESANČIĆ	Sisačko-moslavačka

MARICA JUG	Osječko-baranjska
"ADNOVAS" Obrt za proizvodnju, uslugu	Osječko-baranjska
promidžbu i trgovinu - DANI VARGA	
STANISLAV TOBIJAS	Osječko-baranjska
ANTO IVIĆ	Vukovarsko-srijemska
“FARMER” proizvodnja zdrave	Virovitičko-podravska
hrane i ljekovitog bilja, Branko Janković	
VANJA TRGOVAC	Bjelovarsko-bilogorska
STJEPAN JAMBREŠIĆ	Bjelovarsko-bilogorska
MARIJA BAČANI	Bjelovarsko-bilogorska
IVAN ZORJA	Bjelovarsko-bilogorska
SLAVKO KADIĆ	Bjelovarsko-bilogorska
STJEPAN MATIJEVIĆ	Bjelovarsko-bilogorska
ANĐELA BRITVIĆ	Bjelovarsko-bilogorska
JOSIP PAVLEKOVIĆ	Bjelovarsko-bilogorska
ANKICA HERL	Bjelovarsko-bilogorska
MARIJA LABAŠ	Zagrebačka
JOSIP BREZICKI	Zagrebačka
Obrt "JAZBEC" vl, JOSIP JAZBEC	Osječko-baranjska
ANA KOPRIVČIĆ	Osječko-baranjska
ZVONIMIR VEZMAR	Bjelovarsko-bilogorska
DUŠANKA TURK	Bjelovarsko-bilogorska
GORDANA KURUC	Virovitičko-podravska
GREBENC HELENA	Vukovarsko-srijemska
"MARXER" - MARSKER ŠIMO	Osječko-baranjska
REPRO STUDIO d,o,o, Dragutun Repar	Grad Zagreb
GRDIĆ MILAN	Karlovačka
KREŠIMIR PETROVIĆ	Koprivničko-križevačka
"WALPO" vl, DARKO PIROŠKA	Osječko-baranjska
FRANJO BAČMAGA	Virovitičko-podravska
HRVOJE NOVOSEL	Zagrebačka
GREKČEVIĆ IMBRO	Zagrebačka
GRADIŠČANEC STANKO	Osječko-baranjska
HRŠAK-MILIČEVIĆ MARIJA	Varaždinska
KAVAČ STEVAN	Istarska
PERPETUATRADE d,o,o,, vlasnik ŽELJKO ČIKI	Osječko-baranjska
POLJOPRIVREDNE ZADRUGE VALPOVO, RJ IVANOVCI	Osječko-baranjska
OSTOIĆ DUBRAVKA	Varaždinska
KUTJEVAC TIHOMIR	Osječko-baranjska
NAKANI TEREZIJA	Bjelovarsko-bilogorska
RADANEC ZLATA	Bjelovarsko-bilogorska
KOSANOVIĆ JADRANKA	Bjelovarsko-bilogorska
MILOVIĆ KATA	Bjelovarsko-bilogorska
GRBAČIĆ JADRANKA	Bjelovarsko-bilogorska
OBITELJSKA ZADRUGA “ SIRANA HUMAC”	Splitsko-dalmatinska
KLARIĆ MATE	Zadarska
MATIĆ SLAVENKO	Šibensko - kninska
ŠAPONJA MILENKO	Zadarska
TROBONJAČA MIRKO	Šibensko - kninska
GNJIDIĆ MIRKO	Šibensko - kninska
BOJANIĆ VASILJ	Šibensko - kninska
KRPINA IVAN	Zadarska
RAPO NIKOLA	Šibensko - kninska
IVKOVIĆ JOVO	Bjelovarsko-bilogorska
KOPČOG SAMUEL	Osječko-baranjska
MASLAĆ GORDAN	Zagrebačka
BAŠIĆ TEREZIJA	Šibensko - kninska
BUDROVČAN IVICA	Bjelovarsko-bilogorska
BUDROVČAN ANTUN	Bjelovarsko-bilogorska

BOSAK MIROSLAV	Osječko-baranjska
ŠAKIĆ ŽELJKO	Bjelovarsko-bilogorska
DUHAČEK ŽELJKO	Sisačko-moslavačka
ŽAMPERA NIKICA	Zadarska
JEVTIĆ ALEKSA	Koprivničko-križevačka
JURIĆ STANISLAV	Vukovarsko-srijemska
PORTADA TOMISLAV	Zadarska
GRUBIĆ DUŠANKA	Šibensko - kninska
ZDRAVKO MAMIĆ	Zadarska
PRVA EKOLOŠKA ZADRUGA	Bjelovarsko-bilogorska
BILEK VITOMIR	Bjelovarsko-bilogorska
JELOVEČKI STJEPAN	Zagrebačka
KOS TOMISLAV	Bjelovarsko-bilogorska
PAUŠIĆ DRAŽEN	Bjelovarsko-bilogorska
KUFTIĆ NENAD	Primorsko goranska
ZLATKO ŠARONJA	Krapinsko-zagorska
SLAVKO VRKIĆ	Zadarska
POLJOPRIVREDNA ZADRUGA "SVIRČE"	Splitsko dalmatinska
LAZO DRONJAK	Šibensko - kninska
REŠKOVIĆ IVAN	Brodsko-posavska
ŠPIRANEC VLADIMIR	Bjelovarsko-bilogorska
VIDUKA KREŠIMIR	Zagreb
IGLUN KOMERC	Zadarska
PZ CERINE, PZ Topolje	Osječko-baranjska
AGROPAN d,o,o,	Zagreb
ARDUINA BUBOLA	Istarska
BELJE d,d, Darda, Poljoprivreda Mirkovac	Osječko-baranjska
SAGI DRAZEN	Osječko-baranjska
IGREC IVICA	Osječko-baranjska
"SMS" D,O,O, ZA PROIZVODNJU PRIRODNE HRANE	Splitsko -Dalmatinska
ZAVRSKI MARICA	Osječko-baranjska
ROKI'S d,o,o	Splitsko-dalmatinska
AGRO MITROVIC samostalno obiteljski gospodarstvo	Osječko-baranjska
JAN SPIDER d,o,o,	Virovitičko-podravska
NEMCIC NIKOLA	Virovitičko-podravska
BUJAK ILONKA	Osječko-baranjska
SEKANIC-MUNDIC RAJKA	Vukovarsko-srijemska
"SILADI"	Zagrebacka
HLADNIC-uljara, trgovina i gradevinska mehanizacija	Koprivničko-križevačka
DEMD d,o,o, Terra & herba Osijek	Osječko-baranjska
GRLADINOVIC ZLATKO	Osječko-baranjska
PETROVIC PREDRAG	Osječko-baranjska
KAKAS FRANJO	Osječko-baranjska
SAGITTA d,o,o,	Osječko-baranjska
DEBOLIS IVAN	Osječko-baranjska
SKRINJARIC JASMINKA	Osječko-baranjska
ANIC TATJANA	Zagrebacka
MEDVED MARIJA	Bjelovarsko-bilogorska
MASNEC IVAN	Zagrebacka
GACESA NIKOLA	Karlovačka

Laws and regulations

Agriculture in general

Food Act (N.N. (Official Gazette) 96/03)

Agricultural Strategy (N.N. 89/02)

Agricultural Law (N.N. 66/01, 83/02)

Agricultural Land Act (N.N. 66/01, 87/02)

Law on State support in agriculture, fisheries and forestry (N.N. 87/02)

Rules on commercial farm Register enrolment (N.N. 128/02, 11/03, 14/03)

Wine Act (N.N. 96/03)

Organic agriculture in Croatia

Organic Production of Agricultural and Food Products Act was deliberated (O.G.12/01);

Rules on completion of directive concerning recompenses of expenses for inspection services and process of evaluation of respect of basic norms which regulate the organic production (O.G. 101/03);

Rules on recompenses of expenses for inspection services and process of evaluation of respect of basic norms which regulate the organic production (O.G. 85/02)

Rules on organic production for plant cultivation and production of plant products (O.G. 91/01)

Rules on system of evaluation of respect of basic principles governing the organic production (O.G. 91/01)

Rules on procedure and conditions for the achievement of the eco logo (O.G. 13/02)

Rules on processing in organic production (O.G. 13/02)

Rules on organic production of animal products (O.G. 13/02)

Rules on organic product labels (O.G. 13/02)

Rules on conditions and ways of enrolment in registers concerning the organic production of agricultural and food products (O.G. 13/02)

Rules on professional extension services in the organic production (O.G. 13/02)

Rules on organic production for fibril processing (O.G. 81/02)

Distribution regulations in Croatia

Trade Act (N,N, 49/03)

E-commerce Act (NN 173/03)

Consumer Protection Act (NN 96/03)

Competition Protection Act (NN 122/03)

Rules on the Form and Method of Running Merchandise

Inventories in Retail Trade (NN 73/02, 79/02)

Rules on Minimum Technical Requirements for Premises on

which Trade and Trade Intermediation are Carried Out, and

on Requirements for Sale outside Premises (NN 37/98,

73/02, 153/02)

Rules on Admissible Losses due to Spillage, Dispersal,

Damage and Breakage on Products / for legal entities /

(NN 57/98, 81/02, 303/03)

Regulation on Measures for the Prevention of Illicit Sale at

Marketplaces and in Other Open-Air Spaces (NN 69/01)

Regulation on Special Requirements for Retail Trade in

Specific Types of Shops (NN 105/01)

Regulation on Special Requirements for Wholesale Trade

and International Trade in Specific Types of Merchandise

(NN 16/02)

Special Practices for Retail Trade (NN 16/95)

Collective Agreement for the Trade

Croatian Chamber of economy (HGK), Rules on marks for visual labeling of Croatian products, 16/12/1999, Zagreb;

State inspectorate, control of products (N,N, 76/99, N,N, 96/03, N,N, 151/03)

The law for protection of consumers (N, N, 96/03)

Food safety

Some important sites to be consulted concerning the lows on food safety and quality and conditions for exportation of food products

http://www,usembassy,it/agrtrade/files/Export2003,pdf

EU food low - http://europa,eu,int/comm/food/food/foodlaw/index_en,htm
Exports in EU -
http://europa,eu,int/comm/food/fs/inspections/special_topics/guide_thirdcountries_en,pdf

Food safety in EU
http://www,euractiv,com/Article?tcmuri=tcm:29-117493-16&type=LinksDossier

organic farming in EU - http://www,organic-research,com/LawsRegs/regs/eureg,asp

FAO/ITC/CTA (2001), World markets for organic fruit and vegetables, Opportunities for developing countries in the production and export of organic horticultural products, FAO, Rome
ENGLAND
Exports to England, http://www,food,gov,uk/enforcement/imports/
GERMANY
Ministry of Agriculture,
http://www,bml,de/index-272804D294E247F1BEF4F4F9D9C2BC4C,html
Imports of animal food by tourists
http://www,germany-info,org/relaunch/info/consular_services/customs/animalproducts,html
Germany, agri – food country profile, http://atn-riae,agr,ca/europe/e3039,htm
Trade and economic profile for Germany (contains useful addresses),
http://www,itds,treas,gov/germany,html
BVE, http://www,bve-online,de/
Hyperlinks for doing business in Germany,
http://www,localglobal,de/links/links_mj_englisch,html

INTERNATIONAL TRADE-RELATED MEMBER ASSOCIATIONS
Federation of the agricultural traders (BVA)
Claus Bacmeister, Hamburg
Präsident
Robert Künzel

Geschäftsführer
Beueler Bahnhofsplatz 18, 53225 Bonn
Postfach 301655, 53196 Bonn
Telefon 0228/975850
Telefax 0228/97585-30 /-32
eMail: zentrale@bv-agrar.de

Federation of German Wholesale and Foreign Trade
http://www.bga.de/

German Chambers of Commerce Abroad
http://www.ahk.de/

Organic farming
www.soel.de/english/deutschland_ueber_e.html - 18k - 10 dic 2004
http://www.verbraucherministerium.de/index-27B3D057B83D4089B66FFBAA99BD991A.html
http://www.fibl.net/english/fibl/portrait-germany.php

ITALY

Ministry of Agricultural and Forestry Policies
http://www.politicheagricole.it/

Organic production
http://www.politicheagricole.it/PRODUZIONE/AGRIBIO/home.asp

Laws and regulations concerning the Food European Agency for food safety
http://www.parlamento.it/parlam/leggi/04164l.htm

Association of Producers: Coldiretti
http://www.coldiretti.it/

Association of Producers: Confagricoltura
www.**confagricoltura**.it/

Confederation of producers - CIA
www.**cia**.it/

Association of the Chambers of Commerce
www.asso**camere**stero.com/www.asso**camere**stero.com/

Association of Organic Producers
www.aiab.it/

AUSTRIA
Ministry of Agriculture
http://www.lebensministerium.at/en/

Quality and Safety
http://gpool.lfrz.at/gpool/main.cgi?catid=15570&rq=cat&tfqs=catt&catt=_lebensm&yh_order=tite
l

Norms governing quality
http://gpool.lfrz.at/gpool/main.cgi?catid=15687&rq=cat&tfqs=catt&catt=_lebensm&yh_order=tite
l

Austrian Agency of Food Safety
http://www.ages.at/servlet/sls/Tornado/spr/ages/Home

Agrmarket Austria
http://www.ama.at

Organic farming
http://www.organic-europe.net/country_reports/austria/default.asp
http://www.organic-europe.net/country_reports/pdf/2000/austria.pd

Austria

Al Naturkost
Schulgasse 35
2542 Kottingbrunn
tel 02252/77218

Natürlich Weber
A – 3932 Kirchberg/Walde 52
Tel: 02854 20417
Fax: 02854 631016
office@weber-austria.at

Operating from Germany

Bodan verteilerdienst
Bruchfelderstr. 6
88662 Überlingen
tel: 0049 7553 8240
fax: 0049 7553 6118
bodan.VTD@t-online.de

Dennree Versorgungs BmbH
Hoferstr 11
95183 Königshof / Töpen
tel: 09295 – 180
fax. 09295 – 1850

German operators in the organic food sector are also found under:
http://www.naturkost.de/herst/grosshandel.htm

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Fax: +49 – 2233 – 9745199
i.abeln@landline.de
www.landline.de

Dennree vergorgungs GmbH
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http://www.briospa.com

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