

## DEVELOPMENT OF ORGANIC FOOD MARKET IN GERMANY

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**Key words:** food quality, organic food market, market infrastructure, trade in organic products, factors of market success.

### Abstract

The paper is a study of the development achieved so far and current status of organic food market in Germany as the country in which it is no longer a niche market and where it has become an important segment of the food market. The main focus of the study was placed on the trade aspects of the German market for that group of food products and factors determining it.

Eco-food possesses an important position in the German market of food. The turnover in it reached € 4.5 billion and is still growing. As a consequence, it still is a market with development potential. The achieved level of sales and continuing dynamics of growth of the market for organic food are consequences of building high ecological awareness among consumers matched by an extensive range of products and their common availability in different forms of sales outlets including networks of trade in such food involving not only the specialist shops but also supermarkets and a very well developed system of communication throughout the entire marketing chain of the market flow of such food products.

## ROZWÓJ RYNKU ŻYWNOŚCI EKOLOGICZNEJ W NIEMCZECH

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**Słowa kluczowe:** jakość żywności, rynek żywności ekologicznej, infrastruktura rynku, handel produktami ekologicznymi, czynniki sukcesu rynkowego.

### Abstract

Opracowanie jest studium dotychczasowego rozwoju i aktualnego stanu rynku żywności ekologicznej w Niemczech, kraju, w którym wyszła ona już z niszy i stała się znaczącym segmentem rynku żywności. W badaniach skupiono się głównie na handlowych aspektach niemieckiego rynku tej grupy żywności oraz czynnikach go kształtujących.

ekożywność ma znaczącą pozycję na niemieckim rynku żywności. Obroty nią osiągnęły poziom 4,5 mld euro i nadal wzrastają. Jest to zatem rynek rozwojowy. Osiągnięty poziom sprzedaży i utrzymująca się dynamika wzrostu rynku tej żywności jest konsekwencją rozbudzenia wysokiej ekologicznej świadomości konsumenckiej, dla której zaoferowano bogaty asortyment i jego powszechną dostępnością w różnych formach handlu, włączenia do sieci handlu tą żywnością – oprócz sklepów specjalistycznych – supermarketów, a także bardzo dobrze rozwiniętego systemu komunikacji w całym łańcuchu marketingowym rynkowego przepływu tej żywności.

## Introduction

Supple development of organic food market is the phenomenon that could be observed during the recent years. This type of food is appreciated all over the world because of its high nutritional value and it is treated as an element of public health preventive measures. The model of industrial agriculture, which in the effort for mass production of food and decrease of its price was assumed by our civilization, has long been criticized by ecologists and naturalists. "Quality instead of quantity" – that simple statement is core of increasingly frequently presented objections against consequences of applying biotechnology and biochemistry in production of conventional food and increasingly clearly expressed expectations of consumers in that area. Those expectations start heading towards food frequently called the health food. Products of organic agriculture are one of the groups of foods that satisfy those expectations.

Organic farming aims at obtaining healthy food by applying modern means of production without harm to the environment and without application of artificial fertilizers and pesticides. Social costs related to consumption of food such as treatment of diseases caused by undesirable substances in food products and those penetrating into the environment as a consequence of production processes should also be considered here (RUNOWSKI 1999). The increasing demand for healthy food has been the driving force of organic agriculture for the last twenty-five years. It was established and developed without access to privileges. Subsidies for organic farmers have been introduced only during 1990s and they contributed significantly to the increase of interest in that technique among farmers. Where subsidies for agriculture were accompanied by consumer information campaign we can talk about establishment of the market of eco-products.

Eco-food, frequently understood as organic food, can be classified as functional food or wider the new generation of food (GAWEŃCKI 2002). It is the alternative for the consumer in implementation of the important nutritional needs. The organic and economic character of that group of food products and the benefits offered cause that its future can develop according to various scenarios. In extreme case continuous and long-term market growth (expan-

sion) until becoming an important food market segment could be projected for it. On the other hand, considering its holistic perception by the consumers, the future of eco-food the future might also bring fast saturation of the market or even a decline in its production.

### **Goal and methodology of study**

In view of the above it is interesting to conduct a study allowing review and assessment of the development of the market for products of such food up to date in Germany as a country in which it has already stopped being a group of niche products and became an important segment of food market, which is the goal of this paper. The results of conducted studies and analyses can be used for determining the place and prospects for that group of food products in the Polish market. The applicability value of the results also results from the fact that the Polish market of such food products is only at the initial stage of the increasing trend and, as a consequence, it is rather difficult to build the effective strategy for its development and project its opportunities in confrontation with other trends in nutrition on the basis of own experiences.

Certified organic food compliant with the Council Regulation (EEC) No 2092/91 of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs is the object of the study.

During the recent years the consumers in the European Union clearly developed interest in safety of foods consumed, particularly the additives marked by “E” codes and other process residues) and genetically modified organisms. Safe food is food that does not harm health and life if it is prepared and consumed in line with its intended use. Another justified definition says that it is food that is free from biological (microbiological, chemical and physical hazards and agents).

It is worth highlighting that the issue of food safety is treated more widely in organic agriculture than in the conventional one. This is presented in Table 1. The above indicates that better health and sensor quality as well as higher nutritional value should be expected from organic products. Consumption of organic food offers benefits, not only for health but also for the natural environment.

The paper uses mainly the secondary sources of data as well as results of own studies and studies by other authors. The empirical part was based on the data obtained mainly from information portals (reports and databases) of German organizations dealing with market studies and marketing and in particular the excellent resources of the Ecology and Agriculture Foundation

and Market and Price Information Center (ZMP – Zentrale Markt- und Preisberichtsstelle).

As concerns the contents, the paper focuses on the volumes, structure and changes taking place in the trade in food eco-products frequently also called the bio-products. Particular attention was focused on the commercial aspects of the German market in such food and major factors determining it.

Table 1

Food safety understanding terminology

Product safety	Safety of agricultural-food system
<ul style="list-style-type: none"> <li>- No food toxicity</li> <li>- Safe-nutritional food</li> <li>- Safety of declaration (all product components are declared)</li> <li>- Label safety (eco-food is really organic)</li> </ul>	<ul style="list-style-type: none"> <li>- Safety of supplies</li> <li>- Safety of distribution</li> <li>- Safety of transparency and neighborhood</li> <li>- Safety of consumer influence on food production</li> <li>- Safety of information concerning all links and stages in the food production process (e.g. through application of labels)</li> <li>- Safety – absence of negative influence of production practice on people and live organisms, environment and climate</li> </ul>

Source: HANSEN (2005).

The detailed analysis, both horizontal and vertical, allowed formulating a synthetic outline of the perspective for development of the market for eco-products from the perspective of production and consumption.

## Results of studies

### Organic agriculture in global food economy

Organic agriculture has developed very dynamically during the last several years and nowadays it is practiced in 120 countries of the world. The number of farms and area cultivated according to that system increases continually. According to the latest studies by the International Federation of Organic Agriculture Movements – IFOAM (WILLER, YUSSEFI 2006), more than 31 million ha of agricultural land globally is used and managed according to the organic agriculture system at 623,174 farms. In 2006, a significant increase in sales of organic food was observed in Asia. That was caused by the avian flu epidemic. The population of that continent, in fear of the disease, tends to purchase safe food and organic food is such.

The market of organic products increases continually not only in Europe and North America (that are the “driving engines”) but also in many other developing countries (SAHOTA 2006). The largest area of organic farming was recorded in Australia (12.1 M ha), China (3.5 M ha) and Argentina (2.8 M ha). This, however, does not mean that those countries have the best-developed markets of organic agriculture.

As indicated by the data of the International Federation of Organic Agriculture Movements (IFOAM), the global organic food market is developing very dynamically and in 2006 exceeded the value of USD 40 billion, of which European market is worth USD 31 billion (WILLER, YUSSEFI 2007). This indicates that organic food has achieved the most important place in Europe. Among the European countries the German market is the most promising one where the highest value of sales of such food was achieved. In 2006, it exceeded € 4.5 billion (DOSCH, GERBER 2007). It should be stressed that the German market of organic food is outstanding globally and in Europe not only as concerns the overall value of organic food consumption but also in the categories of high production and consumption development dynamics. This allows seeing Germany as the current and the future leader in development of the market for that group of food products.

### **Main stages of organic agriculture development in Germany**

The beginnings of organic agriculture were linked to the social movement taking place during the late 19<sup>th</sup> c. as the answer to the progressing urbanization and industrialization. It promoted return to lifestyle consistent with the nature meaning, among others vegetarianism and change in nutritional habits, care for the body, keeping garden lots and protection of animals, the nature and the homeland. From that movement, during the 1920s and 1930 the system of “natural agriculture” developed that was supported by the “Bebauet die Erde” magazine established in 1925 by Walter Rudolph. It presented lectures, advise and answers to questions asked by farmers (HACCIUS, LÜNZER 2000).

During 1920s, next to the natural agriculture, another agricultural system, i.e. biodynamic agriculture established by Rudolf Steiner (1924) developed. Its assumptions were based not only on the natural sciences but also encompassed the spiritual aspect of the man. The bases of those sciences are also present today. A farm is considered a specific type of an organism that has also immaterial influences. Those influences understood as dynamic influence or forces result, for example, from the biodynamic preparations or strengthen their operation. Those preparations are extracts from herbs added in small quantities to fertilizers.

Organic-biological farming initiated in Switzerland during 1950s by Hans Müller and his wife Mary, who dealt mainly with implementation of the methods developed by her husband in the home garden was another system. The theoretical foundations for the theory by the Müllers were provided by a German doctor and microbiologist Hans Peter Rusch, who in his book "Bodenfruchtbarkeit" wrote about the important influence of soil microbiology on the yield of agricultural crops.

During 1960s people in Germany started noticing the increasing ecological threats for the environment and people. That contributed to focusing more attention on the agriculture and methods applied in it. The year 1962 was important in activities of ecology-oriented movements as during that year the organization called the Ecology and Agriculture Foundation (Stiftung Ökologie & Landbau SÖL), dealing in particular with exchange of knowledge and experiences concerning factors with negative influence on the natural environment was established. In 1971, the association of producers of organic products BIOLAND was established. From its establishment it supported establishment of the IFOAM (International Federation of Organic Agriculture Movements – established in 1972). That period, i.e. years 1968-1988 is treated in Germany as *the first phase of organic development*.

In 1988, on the initiative of the Stiftung Ökologie & Landbau, the Working Community of Organic Agriculture (ArbeitsGemeinschaft Ökologischer Landbau – AGÖL) was established. That community was the supreme association of organizations, which, in 1984, established the first common guidelines for organic agriculture in Germany. As of that moment the development of organic agriculture progressed as the speed of a lightning. This also happened as a result of support for those activities provided by the national government within the frameworks of the extensive program of the European Community approved in 1989 and next, as of 1994, thanks to the Commission Regulation 208/92 and Council Regulation 1257/1999 of 2000. After unification of Germany the area of organic farms increased but market development in the area of former Eastern Germany was extremely difficult because of the absence of knowledge on organic products. In 1999, on the initiative of the AGÖL the trademark awarded to organic products that satisfied the European Union criteria was created. However, the AGÖL decided that was insufficient and the national identification of products Bio-Siegel was introduced. After implementation of the national trademark the use of the European Union mark was abandoned. That period represented *the second phase of organic agriculture development*.

*The third stage* of development started in 2001 and still continues. It is highly favorable for that market as it created a real boom for organic products. In 2001 the area of organically cultivated land increased by 9.8% as compared

to the preceding year while the number of farms increased by 924 (i.e. 6.3%). Also in 2003 an increase in area and number of ecological enterprises in Germany by 5.3% as compared to the preceding year was recorded. By the end of 2004, the area of German organic farms reached the total of 767891 hectares (4.5% of the total farmland area) while the number of farms reached 16603 representing 3.9% of total number of farms (www.soel.de of 09.12.2005). Around 800 000 hectares, i.e. 4.7% of agricultural land in 2005 were organically cultivated farms while almost 17000 farms were organic (4% of all farms). This represents the increase in area by 4% as compared to the preceding year (*Bio-Markt Kompakt* 2006, p.3, www.ekolandbau.de).

### Trade in organic products and its forms

During 1970s that is with appearance of the demand of organic products in Germany the first shops with natural food were established. During 1980s the demand already exceeded the supply and during the second half of 1990s retail trade developed offering also organic products. The demand increased together with the supply.

Figures 1 and 2 present respectively the turnover on organic products and the share of that turnover in the total turnover on food products in Germany.

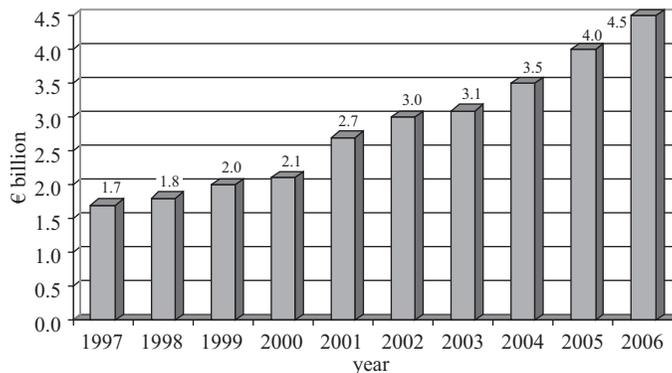


Fig. 1. Turnover on organic products in Germany (in € billions)

Source: www.oekolandbau.de of 9.12.2005; data for years 2004, 2005 from projections of *Ökomarkt Jahrbuch* 2006. pp. 10-11; data for 2006 from www.soel.de of 06.04.2007.

Year 2001 is considered the beginning of the boom for products of natural origin in Germany. This is linked to numerous scandals concerning food such as, e.g. the. BSE. During that year the market of bio-products in Germany

recorded growth by 35% to around € 2.7 billion representing around 2.1% of the total volume of trade in the foods markets.

Stagnation of 2003 was just a break before another increase in trade to € 3.5 billions in 2004. Year 2005 brought another increase in the volume of trade by 15% to around € 4 billion while in 2006 the volume of trade reached € 4.5 billion.

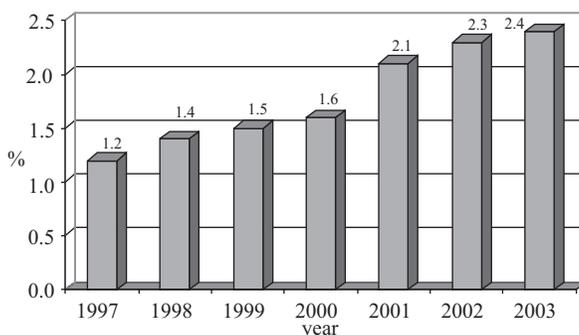


Fig. 2. Share of organic products in the volume of trade in food products in Germany (in%)  
Source: [www.oekolandbau.de](http://www.oekolandbau.de) of 9.12.2005.

RIPPIN (2006b) afforded even a statement that the situation was a signal that in the German market the organic products are leaving the niche. That is confirmed by the initial data for the first half of 2006 indicating a 35% increase as compared to the same period of the preceding year.

Specialist shops (e.g. healthy food shops – Reformhaus and natural food shops) were of fundamental importance in trade in organic food in Germany during the first period of intensive growth of the market for it. During the recent years the role of traditional retail trade also increased clearly as indicated by the data presented in Figures 3 and 4 representing the market size and share of individual forms of trade in the volume of trade in organic food. During the period of 1997-2006 the volume of trade in organic products in all forms of sales increased. The largest increase was recorded by retail shops while the smallest by the health food shops (Reformhaus) and crafts.

The structure of shares gradually changed. The share of direct sales by producers and the share of healthy food and natural food shops decreased slightly. The increase in the volume of sales was recorded, similar to the volume of trade, by retail shops offering a wide range of eco-products next to the conventional foods.

The retail trade including a wide range of organic products in its offer in 2006, as compared to 2001, doubled its volume of trade in organic food (to

€ 2 billion) reaching over 40% share in sales of organic products. A relatively high increase in the sales of organic foods was also recorded by specialist shops with natural food and pharmacies (included in the category “other”), which in 2006 reached almost 10% share in the market.

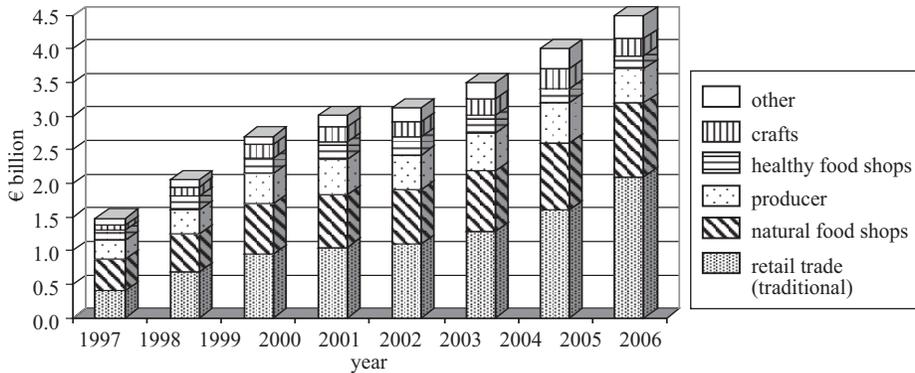


Fig. 3. Value of organic products sales by sales channel

Source: Own work based on [www.soel.de](http://www.soel.de) of 21.11.2005.

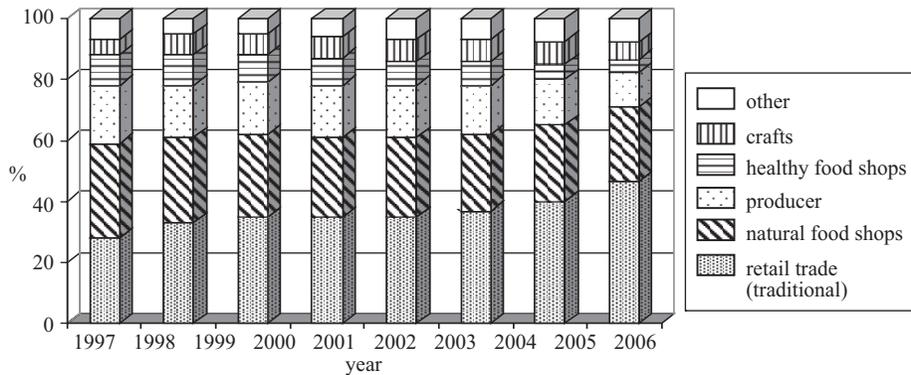


Fig. 4. Structure of organic products sales according to the sales channel

Source: Own work based on [www.soel.de](http://www.soel.de) of 21.11.2005.

The health food shops (Reformhaus) are at the stage of a kind of stagnation. Agricultural producers, although they increased their turnovers, somehow start decreasing their relative share in the market of those products ([www.soel.de](http://www.soel.de) of 21.11.2005). The largest increase in spendings of the households on bio-products in 2005 was recorded for fruit (by 42%). Dairy products and fresh vegetables also recorded a strong position in that respect (RIPPIN 2006a).

### **Ways in which trade obtains benefits from the demand for bio-products**

Fruit or vegetables are most frequently the first organic products that bio-consumer gets in touch with. If the consumer is satisfied with the first bio-products purchased, he will most probably go for further products of that kind. From that relation the main guidelines for effective, particularly retail trade, were drawn in Germany, which is presented in Table 2. Special attention should be paid among them to factors of presentation (positioning), development of the range of products and prices.

Table 2

Characteristic of effectiveness of trade in organic products

Characteristic	Ineffective trade	Effective trade
Success parameter	Potential of turnover not exhausted	Potential of turnover exhausted
Range/ Seasonality	Long shelf life bio-products only	Long shelf life and seasonal bio-products
Range/Choice	Narrow range	Wide range
Range	Promotion of conventional and bio-products	At compatible prices, offering bio-products only
Prices	Preferred large price difference between bio- and conventional products ca. 50%	The same pricing principles for bio- and conventional products
Regional products	Absence of regional products in the offer	Sales of bio-products from the region
Packaging	Sale of packaged bio-products	Open sale of bio-products
Positioning	Among other products without a special concept, unfavorable placement as compared to conventional products	Positioning of bio-products in a favorable among products or in a special place, or combination of both methods
Share of products in shop area	Small area for bio-products	At least 2-3 special stands for bio-products

Source: Own work based on [www.oekolandbau.de](http://www.oekolandbau.de) of 21.02.2006.

Presentation of fruit and vegetables has a major determining influence on whether offering them for sale will be a success. The decision concerning purchase of vegetables and fruit is generally made at the place of purchase; that is why it is so important that organic products must be adequately presented. They should be positioned on shelves in front of conventional products or in separate blocks. In case of other solutions the turnover decreases. Market tests show that organic products that are not positioned in blocks with conventional products reach a higher level of success (RIPPIN

2005). In such a case interest in eco-products among occasional consumers of healthy food and the number of spontaneous purchases also increase. Although there are no universal rules concerning positioning of products, it is assumed that achievement of satisfying turnovers and revenues requires preparing the minimum of 2-3 sets of shelves in various points of the shop.

Range of products – fearing possible losses the sellers generally offer a small range of fresh or seasonal bio-products. That is why they generally focus on products with longer shelf life such as carrots, onions or potatoes. The offer is rather constant and as a consequence unattractive for the consumer. Additionally the offer of, e.g. apples is generally limited to a single cultivar while conventional apples are offered as a rich spectrum of cultivars.

Prices- the pricing method for bio-products should be the same as in case of conventional products. That allows avoiding sometimes astronomical differences between prices. The high prices of health food are indicated by clients as evidence of overstating their value. Also in pricing bio-products the principle of taking the competitive situation into account is applicable. Aiming at obtaining profits on sales the sellers must match the prices of bio-products with prices of conventional products or focus their offer on organic products only. It is also possible to offer organic food at prices below that resulting from standard calculations and traditional products above that price. Consumer studies indicate that there is little knowledge of the prices of fruit and vegetables and as a consequence there are no fixed marginal prices acceptable to the consumers.

The increase in importance of traditional retail trade in trade in organic products can have negative consequences from the perspective of the specialist sellers. There are concerns that specialist sales channels will be pushed out off the market and more important supermarkets will offer the farmers very low prices for their products. Particularly high increase in turnovers is recorded in case of sellers' brands while the turnovers on producers' brands remain at unchanged levels (RIPPIN 2005).

### **Market infrastructure and its integration**

Efficient operation of producers, processors or traders alone will not secure efficient functioning of the market. Well-developed market infrastructure and favorable organizational environment are necessary. The efficient information system, which streamlines and increases competitiveness of the market, is one of the most important elements of market environment. A wide range of systematically gathered information on both the supply and the demand allowed, on the basis of long-term observation and analysis, determining the

most important factors for development of the market for that group of foods in Germany. Specification of those factors with indication of their rank and synthetic characteristics is presented in table 3. That specification, in addition to the classic division of them into demand related and supply related ones also exposes the factors of interest in such food in the distribution sector and, in particular retail sector.

The most complete information, including the statistics, concerning organic farming and farming in Germany (and the entire Europe) is provided by the ZMP- Zentrale Markt- und Preisberichtsstelle, which monitors all segments of agriculture on current bases. The special focus is fixed on studies of prices and trends in the market. The producers, processors and traders provide the compulsory scope of information.

Organic farming as a special segment of agriculture requires separate legal regulations. Currently in Germany there are 8 certifying organizations (Biokreis, Bioland, Biopark, Demeter, Ecovin, Gaa, Naturland and Okosiegel) and 24 control entities the responsibilities of which are specified in the law on organic agriculture and the EEC Regulation 2092/91.

The majority of organic farmers and processors in Germany are associated in unions or associations. Many of those organizations possess their own protected trademarks. In 2001, the uniform logo for organic products, Bio-Siegel (Siegel – “Seal” in German), was established. It can be used by producers and traders who subjected their operations to control of compliance with the standards set by the EEC Regulation 2092/91. Marking of organic products with other logos is also allowed, which is a quite common practice, particularly in supermarkets and specialist retail trade.

There are 43 institutions dealing with professional advisory services for production by organic methods. They are government entities of federal and country level, producer associations and private organizations. 79 research institutes work on the issues of organic agriculture and products of it; a significant proportion of them are bodies of university level schools ([www.soel.de](http://www.soel.de) of 28.05.2006). In Germany six tertiary schools offer education in organic agriculture.

### **Range of products**

The market of organic food in Germany offers the consumers a wide range of products. The majority of conventional food product groups have organic equivalents. The number of substitutes depends on the degree of processing and the possibility of production without use of agents forbidden in organic agriculture. The range of product continually expands.

Table 3

## Organic food success factors in German market

Factor	Strength of influence	Characteristics
1	2	3
<b>Factors of consumer demand</b>		
Consumer's system of values	+++	Ecology oriented attitudes as expression of self-fulfillment; care for the environment, feeling of community; even low incomes do not stop purchasing of eco-products
Knowledge and beliefs	++	Belief and confidence gained through credible information on attributes of products; emotional advertisements concerning defects of foods
Prices	++	Eco-products seen as expensive, increasing importance of cheap discount shops in food purchasing
Quality	+++	Strongly linked to characteristics of purchase in addition to price and quantity; aware bio-consumer focuses on the value for own health; external values of quality are important for occasional consumer
Presentation in trade	+++	The first contact of consumer with eco-products takes place the most often at the point of sale; it is difficult to expose visually their core characteristics, that is why their positioning and presentation are important
Availability	++	Wide and deep range
Attractiveness and brand	+++	Increasingly often offered under trade brand, which weakens the brand strength, however, competition forces that strategy
Social environment	++	The more positive the attitude of the local environment of the consumer to the eco-products the more of a chance that many such consumers would buy such products – at least for a test
<b>Factors of interest by trade</b>		
Availability	+++	Developed range, quality, continuity of sales
Quality	++	Necessity of satisfying high consumer requirements; when external quality is not high convincing information is required
Competition	+++	Strong competition, particularly in retail trade, forces initially low prices; on the other hand exposing health values and elements related to care for the environment can support obtaining higher prices
Personal beliefs of traders	+++	Supportive to expanding the trade range and presentation
Government programs	+	Should support not only production but also distribution; the basic forms include: seminars, presentations, training for traders and sellers, uniform marking of products increasing attractiveness and trade acceptance

cont. table 3

1	2	3
		Supply factors
Legal regulations and government programs	+++	An important role is played by direct subsidies; they can form the incentive or a barrier to eco-production, they can influence market shortage or surplus. Directives and other regulations excessively restrictive (e.g. licenses for production and processing) can limit the offer
Price information	+++	Subsidies contribute to economic stabilization but can also limit the freedom of enterprise
Local market structure	+++	Local infrastructure is necessary for trade in eco-products in the areas of purchasing and distribution
Personal beliefs	++	A farmer possessing authentic high ecological sensitivity does not make decisions to strongly dependent on economic factors
Imports	+	Strong competition from low production cost countries
Public opinion	+	Eco-products gain in value through scandals with harmful substances presence in food presented in the media

Source: Own work based on [www.oekolandbau.de](http://www.oekolandbau.de) of 16.01.2006.

Table 4  
Number of Bio-Siegel marked products in product groups (groups consisting of over 1000 products, status as at 31.03.2006)

Product group	Number of products in the group	Share (%)
Hot beverages (tea, coffee, cocoa)	4058	12.8
Bread and bakery products	3751	11.8
Herbs and spices	3305	10.4
Meat and cured meat products	3006	9.5
Cereals, flour, leguminous plants	1794	5.7
Vegetables, shoots	1630	5.1
Sweets and cheeps type products	1525	4.8
Ready made products	1430	4.5
Beverages (non-alcoholic)	1316	4.1
Spreads, honey and sauces	1270	4.0
Milk and dairy products	1154	3.6
Dried fruit and nuts	1112	3.5
<b>Total</b>	<b>25351</b>	<b>79.9</b>

Source: Marktimplementierung des Bio-Siegels. Monatsbericht März 2006. p. 9. at [www.bio-siegel.de](http://www.bio-siegel.de) of 28.05.2006.

The information portal Ökoinform in 2005 contained the data on 5418 bio-products while in 2006 the list expanded to 22108 items. Even more products are listed in its reports by the major certifying unit, i.e. Bio-Siegel. At the beginning of 2006 already 31718 products were marked with that logo, and 1589 enterprises had the right to mark their products with it. The list presenting the number of Bio-Siegel marked products in product groups including more than 1000 products is presented in Table 4.

Three product groups represent 1/3 of the entire range of organic products: hot beverages, bread and bakery products as well as herbs and spices. Processed products dominate. Fresh vegetables and fruit are at the end of the list, which results from the difficulties with storage of such products and the ban on application of substances retaining freshness as well as the shelf life. Those factors limit the supply of those goods, particularly during winter and spring.

### German organic food consumer

The average German household consists of 2.2 persons. Statistically, in 2003, it spent slightly more than € 84 for organic products (Fig. 5). The amount of over € 80 corresponds to around 1/3 to 2/3 of a supermarket trolley filled with food products per year (*Bio-Markt Kompakt 2005*, pp. 8-17).

Year 2005 brought an increase of spendings on organic food in Germany to the level of € 49 per person, which represents an increase by over € 28 as compared to such expenditures per person in 1997. Those are the amounts spent per year so they are not high. However, achievement of over twofold increase of expenditures on such food during a period of eight years only (1997-2005), could be considered an important progress.

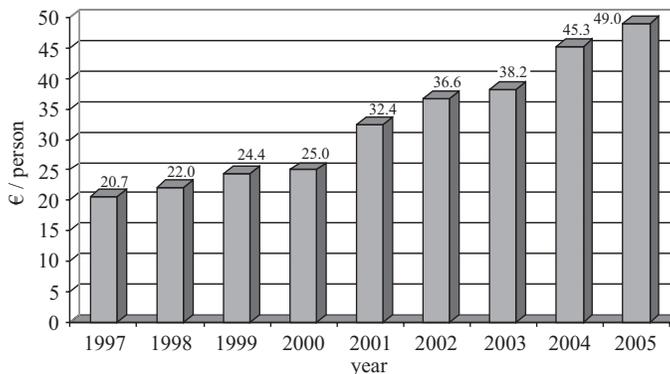


Fig. 5. Dynamics of spendings on organic food in Germany (in € /person)

Source: [www.oekolandbau.de](http://www.oekolandbau.de) of 09.12.2005.

In 2003, a panel study concerning the most frequently purchased organic products according to the point of sale was conducted in Germany covering 2133 households. As presented in Table 5, consumers of organic products most willingly purchase primary organic products, i.e. bread, eggs, cheese, potatoes and fresh milk.

This might be the consequence of availability of those products from ordinary retail shops that are the most frequent place of shopping for organic products. Bio-consumers purchase processed products such as bread, cheese, yogurt or sausage most frequently from natural food shops while unprocessed products such as meat, vegetables and fruit, potatoes and eggs are bought mainly directly from the producer, i.e. farms, butchers or bazaars. Organic juices, cereal products and dried fruit are most popular products purchased from health food shops.

Products purchased from pharmacies are generally characterized by higher prices and special use; generally they are not products purchased daily. This can also be noticed while analyzing the organic products most frequently purchased in such shops, i.e. child food, sweets and snacks, musli, tea and hot bread spreads.

Participants in the German organic products market have many possibilities of communicating. First of all, there is an efficient information system addressed directly to the consumers using numerous Internet portals. Information con-

Table 5  
10 organic products most frequently purchased in Germany according to place of sale

Overall market	Retail trade	Natural food shops	Direct sales	Healthy food shops (Reformhaus)	Pharmacies
Bread	eggs	bread	beef/veal	fruit juices	child food
Eggs	fresh milk	cheese	vegetables and fruit	bread	sweets and snacks
Cheese	potatoes	yogurt	potatoes	cereal products	musli
Potatoes	cheese	sausages	eggs	dried fruit	tea
Fresh milk	yogurt	fresh milk	vegetables	vegetable juices	hot bread spreads
Beef/veal	musli	eggs	apples	soy milk	nuts, sprouts
Sausage	carrots	fruit juices	cheese	tofu	fruit juices
Yogurt	butte	potatoes	cereal products	cheese	pastries
Apples	child food	apples	lettuce	vegetable oils and fats	cereal products
Wine	bread	pastries	fresh milk	sweets and snacks	vegetable oils and fats

Source: [www.zmp.de](http://www.zmp.de) of 08.03.2006.

cerning bio-products and organic agriculture, range of products, place of sale, prices, methods of preparing dishes and other is available there. The majority of producers have also their own web sites.

Purchase of products directly from a farm or at a bazaar becomes a unique opportunity for dialogue between the producer and the consumer. Also all types of fairs, exhibitions and presentation offer opportunities for direct meetings. Some of organic farms owners operate also agrotourist farms promoting their own products.

Promotional and information activities are organized by associations of producers, processors, traders and marketing entities, which facilitates communication with consumers. Those activities are also joined by organizations of local, regional and national character as well as the Ministry of Agriculture. Promotional projects are large scale ones. Advertisements on television and Internet are just standard things. All that translates into a very high level of organic awareness in German society and the level of knowledge of the products.

Point of Sale communication is an important form of communication with the consumers. If the consumer is satisfied with the first bio-products purchased, he will most probably purchase other products of that type. That relation forms the base for guidelines of effective trade. WENDT et al. (1999) divided consumers of bio-products according to the place of purchase and described their socio-demographic characteristics. Clients of supermarkets buy the least of the eco-products although consumption among them increases. They are characterized by medium level of education and income. Clients of natural food shops (Naturkostladen) consume almost twice more healthy products as compared to the former group of consumers. They possess a relatively higher level of education but their incomes can be either high or low. It is probable that consumption in that group will be increasing at more than average rate in the near future. A typical client of an eco-farm or bazaar possesses the highest income and the volume of his consumption is almost equal to that of the clients of natural food shops. The income of healthy food shop (Reformhaus) client is slightly higher than average and the volume of purchases is the second smallest while his education is below the average. In case of customers of eco-farms, bazaars and healthy food shops the expected increase in consumption is minor. Fewer than a half of those customers declare willingness to increase the purchases.

In Germany systematic studies on the demand for organic products are conducted. Below some results from those studies are presented (BRUHN 2003). The level of knowledge on organic products is very high as it exceeds 90%. The number of people declaring at least a one-time purchase of an organic product increases continually and in 2002 it was higher by 31% than in 1984.

The largest places of organic products purchases are bazaars, supermarkets and organic food shops (Tab. 6). The share of turnovers in those points of sale increases at the expense of the healthy food shops, which had a dominating share in such purchases in 1984.

Table 6

Point of purchase of organic products (in % of answers\*)

Item	1984	1989	1994	1999	2001	2002
Bazaar	33	37	57	60	73	57
Supermarket	15	26	27	34	49	52
Organic food shops	39	50	43	47	47	43
Healthy food shops	60	46	51	41	33	41
Direct sales	20	27	36	43	36	37
Specialist shops	17	23	25	27	27	25

\* indicating more than one point of purchase was possible

Source: BRUHN et al. (2003).

Vegetables, fruit, bread and potatoes are the most willingly purchased organic products. The noticeable increase in importance of bazaars and retail shops and decrease in importance of healthy food shops is surely a consequence of the increase in the range of organic products offered at traditional retail shops as a result of which the consumers are not any more forced to search for special shops offering bio-products.

## Conclusion

German organic agriculture and the market for its products are among the best developed ones in Europe. Organic farms occupy already 5% of the total area of agricultural land in the country. The number of organic farms and food processing plants also increases systematically. The dynamics of that growth since the year 2000 until now has been high. The German agricultural-environmental plan assumed an ambitious plan of dynamic development in organic agriculture, which by the year 2010 is to occupy 20% of the agricultural land in the country. Implementation of that plan requires increasing that area by 28% every year.

The turnover on that group of food products also increases dynamically. In 2006 it amounted to € 4.5 billion, which was considered to represent the beginning of the process by which the German market of organic products started leaving the niche and established itself as a segment of general market.

The growth of that market in Germany is supported by development in the range of products of organic agriculture, which matches increasingly closely the needs of the consumers. The current structure of the range of bio-products is developed so far that it does not differ significantly from the structure of conventional products range.

Also the availability is increasing, mainly as a result of including products of organic farms into the offer of conventional retail trade. A well developed network of healthy and natural food still operates in Germany. Organic discount shops offering lower prices for the products have also appeared in the market. To the increasing extent the price set by the seller is influenced by the pricing policies of the competitors.

Germany has a well-developed system of communication with the client. There are many Internet portals containing information specially intended for the consumers while ecological organizations and organizations of organic agriculture conduct continuous information and promotional campaigns. That translates into the level of ecological awareness and knowledge of organic products in the society, which exceeds 90%. The basic motivation for purchase is the health considerations; the care for the natural environment is positioned further in that ranking.

The development so far and the status achieved allow projecting that the organic products market in Germany will still be growing in a stable way. The demand will still depend to a certain degree on the economic situation. As in case of small, dynamically developing segments of the market, a production surplus linked to changes in prices can occur. It is hard to determine precisely, which of the factors will have the largest influence on the development of that market. It is the fact that an increasing number of bio-supermarkets are established. Also a large proportion of traditional grocery shops take the decision to expand the product range by organic products. It is probable that government information programs focusing on the issues of ecology and health contributed to the increase of the demand. The trends observed among young, affluent people also seem to be important. Those people care a lot for the quality of food consumed.

In view of the conducted studies and analyses it can be concluded that Polish organic agriculture is facing both opportunities and threats<sup>1</sup>. Relatively low industrialization of agricultural production and processing can become not a barrier but a major strength. Our agriculture can be much easier and faster adjusted to the requirements of organic technologies than is the case in the

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<sup>1</sup> Germany is ranked 10<sup>th</sup> in the world in the number of organic farms while Poland is ranked 39<sup>th</sup>. In area of ecological crops Germany is ranked 7<sup>th</sup> while Poland is ranked 37<sup>th</sup>. Germany is ranked 13<sup>th</sup> in the world in the share of the area of organic farms in the total area of agricultural land in the country while Poland is ranked 50<sup>th</sup> in that category.

majority of European Union countries. However, a whole range of integrated activities is necessary for the Polish market of organic products to develop. Stimulating the demand is the primary and very important task. Achievement of that requires starting from building the ecological awareness of the society. Development of market infrastructure through establishment of better market information systems for the entrepreneurs, initiating advisory activities, development of distribution channels and improvement of the organization of trade also seem highly important. Coordinated marketing activities are also necessary.

Interest in products of organic farms in Poland might fail to achieve the same high level as in Western Europe also because of the relatively high values of agricultural products from conventional farms. Conditions for organic forms of agriculture in Poland differ significantly from the situation in Western Europe; we are facing factors that are favorable as well as specific difficulties. As the European Union Member State we are required to implement the program of agriculture ecologization within the frameworks of the Common Agricultural Policy (CAP). The means allocated for that purpose in the Union are immense. The established European funds, however, are not and will not be available for production development or organic food markets directly but through support with funds of agricultural-environmental programs. Austria, which after accession to the European Union in 1995 was able to discount quickly the ecological values of the environment and the demand for safe food has achieved that. It can be assumed that effectiveness of those activities will condition the development of organic market in Poland, which probably possesses a so far unexploited potential.

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## References

- BRUHN M. 2003. *Die Entwicklung der Nachfrage nach Bioprodukten unter Besonderer Berücksichtigung des Nitrofen-Geschehens und der Einfuhrung des Staatlichen Biosiegels*. Institut für Agrarökonomie der Universität Kiel, Kiel, Arbeitsbericht, 2: 20.
- DOSCH T., GERBER A. 2007. *Die Ökologische Lebensmittelwirtschaft in Deutschland 2006*. www.soel.de of 06.04.2007, p. 1.
- GAWĘCKI J. 2002. *Żywność nowej generacji a racjonalne żywienie*. Żywność : technologia : jakość, 4 (33), rok 9. Polskie Towarzystwo Technologów Żywności, Kraków.
- HACCIUS M., LÜNZER I. 2000. *Organic Agriculture in Germany*. Stiftung Ökologie & Landbau (SÖL), Bad Dürkheim, Germany.
- HANSEN B., ALROE H.F., KRISTENSEN E.S., WIER M. 2005. *Assessment of food safety in organic farming*. DARCOF Working Papers, 52.
- RIPPIN M. 2005. *Stagnation oder Trendwende am Ökomarkt in 2004?* Ökomarkt Forum, ZMP.

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- RIPPIN M. 2006a. *Ökomarkt Jahrbuch 2006 – Verkaufpreise im ökologischen Landbau*. Zentrale Markt- und Preisberichtsstelle GmbH, Bonn.
- RIPPIN M. 2006b. *Bio-Markt mit starken Zuwäxsen*. Ökomarkt Forum, ZMP, März, 12, 24: pp. 2-3.
- RUNOWSKI H. 1999. *Organizacyjno-ekonomiczne aspekty rolnictwa ekologicznego*. SGGW, Warszawa, p.14.
- SAHOTA A. 2006. *The World of Organic Agriculture Statistic & Emerging Trends 2006*. IFOAM & FIBL.
- WENDT H., DI LEO M. CH., JÜRGENSEN M., WILLHÖFT C. 1999. *Der Markt für Ökologische Produkten in Deutschland und Ausgewählten Europäischen Ländern*. Derzeitiger Kenntnisstand und Möglichkeiten Künftiger Verbesserungen der Marktinformation. Publisher: Landwirtschaftsverlag GmbH, Münster, p. 31.
- WILLER H., YUSSEFI M., 2006. *The World of Organic Agriculture*. Statistics and Emerging Trends. IFOAM.
- WILLER H., YUSSEFI M. 2007. *The World of Organic Agriculture*. Statistics and Emerging Trends. IFOAM.