

EVOLUTION OF ORGANIC AGRICULTURE - A RESPONSE TO EUROPEAN CONSUMER REQUIREMENTS

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Abstract

Significantly increasing trend in the food markets, regarding the diversification of consumer needs, their orientation to natural products, with potential health benefits, environmental "friendly", has made its mark on the organic products market trends and on the development of ecological agriculture (organic). According to data provided by Research Institute of Organic Agriculture and Eurostat we can see that sales of organic food products in recent years have been increasing in almost all European countries. Closely related to demand manifested in the market, organic farming showed a comparable growth perhaps similar to the sectors characterized by high dynamism. Thus, over the 10 years (from 2001 to 2010), in some EU countries, organic crop area grew strongly, sometimes over 100%, increasing their share in total agricultural land. Similarly, the number of animals kept in compliance with the specific practices of organic production has seen a positive development in most EU countries. For most analyzed indicators, the most dramatic changes were recorded in the new EU countries, where increasing consumer demands for safety and food security has manifested much later, and organic foods markets is in its infancy, with great growth potential (compared to the situation of the old EU markets, where organic products markets are more mature, with decreased growth potential). This is confirmed by ecological food products purchases per capita recorded in the new EU countries (in most cases in 2010 equaled to less than 10 Euro / person), which are well below those recorded in the old EU countries (with values above 100 Euro / person recorded in some countries in the same year).

Key words: market, consumer, organic farming

This article captures the trends in the development of organic agriculture at the community level, as well as those manifested in the demand for organic food products. In fact, the growth of organic agriculture is a consequence of trends in demand for organic food products. Although these trends are manifested perhaps in the entire European continent, and beyond, this study only concerns the Community market.

Increasing consumer demands and the diversifying needs that are becoming more sophisticated made their mark on the physiognomy and dynamics of EU markets in general and in the food market particularly. Although the pace of changes made in food consumer behavior is relatively slow - eating habits are formed largely as a result of their transmission through lineage and therefore is affected by traditions, norms, values which generate the character of stability over time - however, changes are also present at this level in the consumer demands, one of them - manifesting itself more strongly - points toward consumer preference for natural products with potential health benefits. One category of products that meet these requirements, are organic products.

In this context, the demand for organic food products is growing and this is reflected in the growth of organic agriculture at the community level.

According to EU regulations "organic production is an overall system of farm management and food production that combines best environmental practices, a high level of biodiversity, conserving natural resources, application of high standards of animal welfare and a production method that take into consideration the preference of certain consumers for products obtained using natural substances and processes." Organic foods are those that have at least 95% of ingredients produced by organic production. (Regulation (EC) No 834/2007 of Council regarding organic production and labeling of organic products).

DATA AND METHODS

This paper is a study based on secondary data sources, the statistical information from Eurostat and Research Institute of Organic Agriculture, FiBL. We used in our analysis specific

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statistical indicators for time series, through which we highlighted some key development of organic farming, namely, consumption of organic food products. The penetration in the consumption of organic products was shown by relative values of intensity, respectively, average sales per person for this product category. Also, through structural values we have highlighted each country's contribution to achieving the EU aggregate values of various indicators analyzed, and the share of

organic farming in the characterizing indicators of the country.

RESULTS AND DISCUSSION

EU market development of organic products is directly dependent on the interest of European consumers in terms of potential beneficial health goods.

Table 1

Sales of organic food products in some EU countries, in 2006, 2009 and 2010 and percentage changes in 2010 compared with 2006

Country	Total sales (millions in Euro)			Percentage change in total sales in 2010 compared to 2006 (%)	Average sales per person (Euro / person)			Percentage change in average sales per person in 2010 compared to 2006 (%)
	2010	2009	2006		2010	2009	2006	
Austria	986	868	496	99	117.73	103.84	60.09	96
Belgium	421	350	258	63	38.8	32.5	24.5	59
Bulgaria	7	5	1	775	0.9	0.6	0.1	793
Cyprus	2	2	2	0	1.9	1.9	2.0	-5
Czech Republic	68	68	27	155	6.5	6.5	2.6	148
Denmark	791	765	434	82	142.9	138.8	80.0	79
Estonia	11.8	12	n.d.	n.d.	8.8	8.8	n.d.	n.d.
Finland	80	75	57	41	14.9	14.2	10.8	39
France	3385	3041	1700	99	52.3	47.3	26.9	95
Germany	6020	5800	4600	31	73.6	70.7	55.8	32
Greece	58	58	55	5	5.1	5.2	4.9	4
Hungary	25	25	20	25	2.5	2.5	2.0	26
Ireland	103	113	57	80	23.1	25.4	13.6	69
Italy	1550	1350	1130	37	25.7	22.5	19.2	34
Luxembourg	65	51	41	59	129.5	103.3	87.1	49
Netherlands	657	591	458	43	39.6	35.8	28.0	41
Poland	59	50	50	18	1.5	1.3	1.3	18
Portugal	21	22	n.d.	n.d.	2.0	2.1	0.0	n.d.
Romania	45	3	3	1700	2.1	0.1	0.1	1712
Slovakia	4	4	4	-7	0.7	0.8	0.8	-8
Slovenia	38	35	4	850	18.6	17.0	2.0	830
Spain	905	905	270	235	19.7	19.7	6.2	219
Sweden	804	698	379	112	86.1	75.4	41.9	105
United Kingdom	2000	2065	2557	-22	32.2	33.5	42.3	-24

n.d. - No data

Source: taken and processed from Research Institute of Organic Agriculture FiBL, 2012 and Eurostat, 2012

* Calculated by dividing the total sales to number of people in each country.

Thus, organic products market in general, including the food products one, witnessed over the past five years analyzed (2006-2010) an accentuated dynamics, especially in new Member States, which is justified by an awareness of the fact that nutrition plays a significant role on health and by a manifestation of consumer demands in these countries compared to the old EU countries. On the other hand, the rate of evolution of demand for organic food products is relatively slower in the old Member States, but the average consumption per person is well above levels in EU countries belonging to the old Communist bloc, thus proving more maturity of the markets in relation to new Member States.

States with the highest average consumption per person of organic food products are: Denmark, Luxembourg, Austria, Sweden, Germany, and the last in the hierarchy of EU countries are: Slovakia, Bulgaria, Poland, Cyprus, Portugal, and Romania (Table 1).

Adapting to the requirements manifested in consumer demand, more and more farmers have turned to organic production, bringing up the total agricultural operators certified by the Community. The number of ecologically certified farmers amounted over 200,000 in 2010 (with 22% more than 5 years ago), countries with the largest share in total EU being: Italy, Spain, Austria, Germany (Table 2).

Table 2

Environmentally certified livestock producers of in 2006, 2009 and 2010, each country's share of EU total number and percentage change in 2010 compared with 2006

Country	Producers (number)			The share of each country in the total number of certified organic producers (%)	Percentage change in the number of certified organic producers in 2010 compared to 2006 (%)
	Year				
	2010	2009	2006		
Austria	22132	21000	20162	10.09	10
Belgium	1108	997	803	0.51	38
Bulgaria	709	446	218	0.32	225
Cyprus	732	732	305	0.33	140
Czech Republic	3517	2689	963	1.60	265
Denmark	2677	2694	2794	1.22	-4
Estonia	1356	1277	1173	0.62	16
Finland	4022	4087	3966	1.83	1
France	20604	16446	11640	9.40	77
Germany	21942	21047	17557	10.01	25
Greece	21274	23665	23900	9.70	-11
Hungary	1617	1617	1553	0.74	4
Ireland	1366	1328	1068	0.62	28
Italy	41807	42925	45115	19.06	-7
Latvia	3593	4016	4105	1.64	-12
Lithuania	2652	2652	2348	1.21	13
Luxembourg	96	77	72	0.04	33
Malta	11	12	10	0.01	10
Netherlands	1462	1413	1448	0.67	1
Poland	20578	17092	9187	9.38	124
Portugal	2434	1651	1550	1.11	57
Romania	2986	3078	3033	1.36	-2
Slovakia	363	363	279	0.17	30
Slovenia	2218	2096	1953	1.01	14
Spain	27877	25291	17214	12.71	62
Sweden	5208	4816	2380	2.37	119
United Kingdom	4949	5156	4639	2.26	7
European Union (27 countries)	219290	208663	179435	100.00	22

Source: taken and processed from Research Institute of Organic Agriculture FiBL

The organic certified agricultural land was in 2010 9,181,507 ha at EU level of, representing an increase of 33.4% compared with 2006. Correlated with consumption growth, the largest increases in certified organic farmland were also recorded in the new EU states. Although the growth of new EU member states surpassed - in most cases - the average growth of the "old" EU states, these countries continue to hold a small

share of total organic certified land area. Countries with the largest area of organic certified land are Spain, Italy and Germany, their share in EU total land covering over 10% in 2010. (*Figures 1 and 2*). It is relevant in analyzing organic farming, the organic production share in total production at a given time, but especially its evolution over time. (*Table 3*).

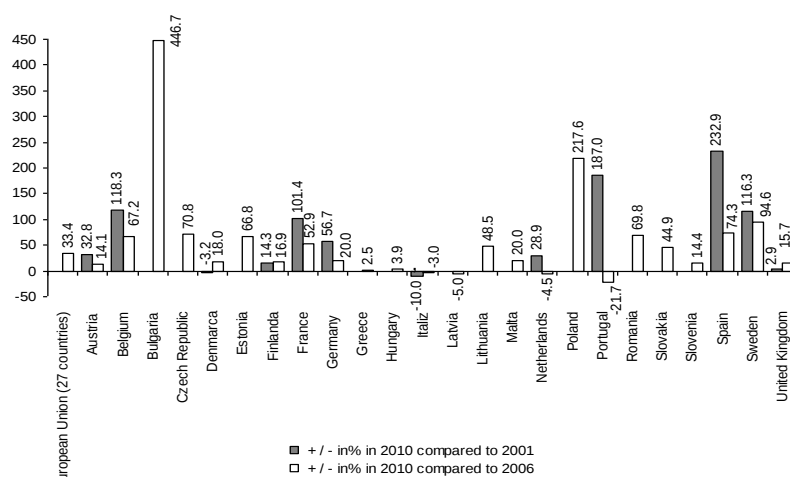


Figure 1 **Percentage change of certified organic land area in 2010 compared with 2001 and 2006 (%)**
Source: processed from Eurostat, 2012

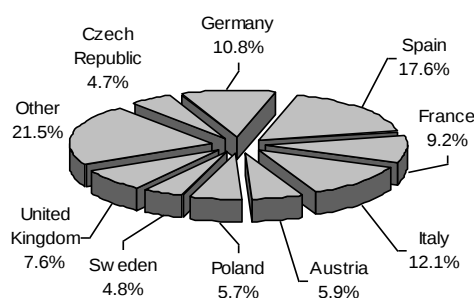


Figure 2 **The share of major countries in total organic certified land area of EU in 2010 (%)**
Source: processed from Eurostat, 2012

Table 3
Organic production of cereals (including rice) in some EU countries in 2010 and its share in total production during 2006 to 2010

Country	Organic production in 2010 (tons)	Organic production share in total production of cereals, including rice (%)				
		Year				
		2006	2007	2008	2009	2010
Bulgaria	3191	n.d.	n.d.	n.d.	n.d.	0.05
Czech Republic	40565	0.32	0.40	0.36	0.56	0.59
Estonia	14168	n.d.	1.27	1.70	1.96	2.11
Spain	215884	n.d.	n.d.	n.d.	n.d.	1.10
Latvia	36031	1.31	1.42	n.d.	2.45	2.54
Lithuania	58025	n.d.	n.d.	n.d.	2.55	2.10
Hungary	33045	n.d.	n.d.	0.36	0.34	0.27
Malta	2	n.d.	n.d.	n.d.	n.d.	n.d.
Netherlands	19503	n.d.	n.d.	n.d.	n.d.	1.03
Poland	68197	n.d.	n.d.	n.d.	0.23	0.25
Slovakia	35814	0.34	0.61	n.d.	0.84	1.35
Sweden	141600	n.d.	n.d.	n.d.	n.d.	3.27

n.d. – no data

Source: taken and processed from Eurostat, 2012

Taking, for example, the grain case we have found that cereal production share in the total organic production is increasing in almost all EU countries in the last few years. Despite this positive dynamic, organic grain production continues to have a tiny share of total production of the crop (Table 3). The expansion of organic farming is confirmed by the livestock development in EU

countries. With few exceptions, Member States livestock from organic certified farms (analysis take into account the most important species) have increased significantly for the last five years (2006-2010). In terms of livestock species and organic farms the most prominent countries are: UK and Italy (cattle, sheep and poultry), Spain (cattle, sheep and goats), Denmark (cattle, pigs and poultry), Sweden and Czech Republic (cattle),

Greece (goats and sheep), Netherlands (pigs and goats). (Table 4)

Table 4

Livestock from organic farms in 2010 change in 2010 compared to 2006 in some EU countries

Țara	Bovine animals		Goats		Sheep		Pigs		Poultry	
	Livestock in 2010	+ / - in 2010 compared to 2006 (%)	Livestock in 2010	+ / - in 2010 compared to 2006 (%)	Livestock in 2010	+ / - in 2010 compared to 2006 (%)	Livestock in 2010	+ / - in 2010 compared to 2006 (%)	Livestock in 2010	+ / - in 2010 compared to 2006 (%)
Belgium	64171	92	3452	12	9506	-29	15290	25	1415863	46
Bulgaria	364	11	2773	2083	6698	535	117	n.d.	0	n.d.
Czech Republic	151814	32	5223	57	57587	44	1972	35	31170	496
Denmark	164523	24	3035	36	9732	-22	179887	122	1174770	22
Estonia	19126	44	681	22	31449	52	287	-31	7429	47
Finland	35879	60	248	320	15123	34	2996	35	97601	21
Greece	23109	4	226556	-26	288923	11	42991	-61	368689	175
Hungary	32445	n.d.	1686	n.d.	9462	n.d.	5377	n.d.	111467	n.d.
Italy	207015	-7	71363	-21	676510	-21	29411	-1	2518830	60
Latvia	45697	-17	7381	53	38522	67	9603	5	28249	65
Lithuania	23076	44	586	-11	13683	61	523	162	2719	190
Netherlands	62000	68	32000	56	27000	204	100000	257	2660000	174
Poland	40301	-26	5431	-14	37026	31	21917	-50	218618	n.d.
Romania	5358	-53	1093	834	18883	-78	320	-81	21580	402
Slovakia	43668	51	1754	25	109627	25	120	-62	188787	325395
Slovenia	20623	43	6125	55	37529	64	2367	36	27751	84
Spain	143039	76	48003	84	443102	109	5900	-56	158884	43
Sweden	221035	130	1343	238	101075	197	44303	68	947086	128
United Kingdom	350183	43	138	-76	981223	31	47387	44	3870891	-12

n.d. – no data

Source: taken and processed by Eurostat, 2012

CONCLUSIONS

In conclusion, organic food market in EU countries is a growing market, as evidenced by changes in the consumption of such products in almost all EU countries during 2006 to 2010. Responding to new consumer demands for safety and food security more and more farmers have turned towards green products. Correlated with trends in number of ecologically certified farmers, the main indicators characterizing organic farming - agricultural land, livestock, crop production - have seen a positive trend over recent years analyzed, in almost all EU states. Despite positive developments, however, we can say that organic products market is far from its mature stage, organic agriculture holding small shares in indicators that characterize the agriculture as a whole.

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