The conditions of organic market development

Souvislosti rozvoje trhu s biopotravinami

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Abstract: The aim of the paper is the evaluation of the present sale of the chosen organic products in the condition of the Czech Republic. The sale analysis is made according to the structure of plant and animal products with the help of both qualitative and quantitative evaluation parameters as for example the amount of production and their prices, sales conditions and the used distribution channels. The part of the paper are also analyses of present state of demand for chosen organic foodstuff and of the consumer's interest in organic foodstuff. The attention is paid mainly to the recognition of the consumer's interest in organic foodstuff, for the consumer's interest is the limit factor of the demand for organic products.

Key words: organic market, distribution of organic foodstuff, consumption of organic foodstuff, supply for organic foodstuff

Abstrakt: Cílem tohoto příspěvku je posouzení současného stavu odbytu vybraných bioproduktů v podmínkách České republiky. Analýza odbytu bioproduktů je provedena dle struktury rostlinných a živočišných výrobků s využitím kvantitativních a kvalitativních hodnotících parametrů, jako např. množství produkce a jejich ceny, podmínky odbytu a využité distribuční cesty. Součástí příspěvku je i analýza současného stavu poptávky po vybraných ekologických produktech a zájmu spotřebitelů o biopotraviny. Pozornost je zaměřena především na získání poznatků o zájmu spotřebitelů o biopotraviny, neboť zájem spotřebitelů je následně limitujícím faktorem poptávky po ekologických produktech.

Klíčová slova: trh s bioprodukty, distribuce biopotravin, spotřeba biopotravin, nabídka biopotravin

The consumers' interest in organic products is increasing in the developed states. This results in the increasing consumption of organic foodstufs, that have got a higher nutritious value given mainly by the higher content of magnesium and ferrum, a higher hygienic quality given by the growing without pesticides and usually also a lower content of nitrates in the organic products. The organic products embody usually a higher technological quality, because they are easier to store and not in the least a higher sensory quality. Also in the Czech Republic, we could observe the increase in the interest in organic foodstuff. The value of the organic market is not very high at the present, but there are anticipations of the future increase (Kretter, Ubrežiová 2006). Organic foodstuff supply is insufficient in the Czech Republic compared to the developed states and its structure is insufficient. However, the number of producers of organic foodstuff is increasing. They support the supply by the new commodities, that could replace the imported products.

The possibilities for the organic market increase are also on the demand side, made by consumers. They are, during the decision making, involved by many factors, which objectify could help to find the ways of organic sales increase (Živělová, Jánský 2006b).

The aim of the paper is the evaluation of the present state of the chosen organic products state in the condition of the Czech Republic. The sale analysis is made according to the structure of plant and animal products with the help of both qualitative and quantitative evaluation parameters as for example the amount of production and their prices, sales conditions and the used distribution channels.

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Parts of the paper are also analyses of the present state of demand for the chosen organic foodstuff and of the consumer's interest in organic foodstuff. The attention is paid mainly to the recognition of the consumer's interest in organic foodstuff, for the consumer's interest is the limit factor of the demand for organic products.

MATERIAL AND METHODS

The paper has arisen within the research project of the FBE MUAF Brno, MSM 6215648904 "Czech economy in the process of integration and globalization and the development of agrarian sector and sector of services in new conditions of European integrated market" of the thematic direction 04 "The trends of agro-business, formation of the segmented markets within the commodities' chains and the food nets in the process of integration and globalization and the changes of the agrarian policy".

For the purpose of closer knowledge of the sale methods and of the guarantee of sales, the investigation about the guarantee of sales was performed among the informants of the selective file of organic farmers.

For the purpose of a detailed recognition of the grounds leading to the purchase of organic products, the research through the structured questionnaire as made. Other group by which there was probed the interest in organic products were sellers.

RESULTS AND DISCUSSION

The organic foodstuff sales development and influencing factors

The supply of organic foodstuff and especially its structure falls short of the dynamic development of the area of organically covered land and the number of the organic farmers. It is mainly caused by the production structure of the organic farms that are mainly focused on the permanent pastures and the associated beef reasing. The supply of organic product is in spite of that very low and does not cover the increasing demand.

As one of the main restriction of the organic market development in the Czech Republic, there could be regarded the low developed distribution channels and low transparency of the market (Živělová, Jánský 2006a). For the purpose of closer knowledge of the sale methods and of the guarantee of sales, the investigation about the guarantee of sales was performed among the informants of the selective file of organic farmers.

As possible distribution channels, the following opportunities were thought:
a) direct sale from the farmyard
b) direct sale on market place
c) the healthy food shops
d) supermarkets
e) processors
f) other

The mentioned distributing channels were detected for the following commodities: winter wheat, spelt, winter barley, spring barley, oat, rye, triticale, potatoes, peas, flax, millet, herbs, buckwheat, marrow, vine, cow's milk, beef, sheep meat and goat's milk.

The outcomes of the survey are shown in Table 1. Winter wheat and spelt are distributed to further processing. The similar situation is in the case of winter barley, rye, triticale and buckwheat. The part of the informants use partially (10–15%) the direct sale from the farmyard in the case of spelt, barley, oat and triticale.

Another situation is in the of case potatoes, where the direct sale from the farmyard or on market place is mainly used, the use as a fodder in own company also appears. The marrow is sold to further processing. Organic wine is realised by the direct sale to the consumers. Other crops as peas, flax and some variations of herbals are sold to the processors.

There is a different situation in the case of beef-cattle. 65% of the informants sold the meat to the processors, 15% sold direct from the farmyard and 20% combine direct sale and sale to processors. Three informants sold their production for the conventional processing to the slaughter.

Milk is mainly sold to the processors, only a little part through the direct sale. Lamb meat is sold mainly from the farmyard; only 1 informant sold the meat to the processor. The goat milk, respectively dairy products, are as well sold mainly directly to the consumer**.**

From the obtained data, it ensued that no informant asked about the forms of sale does sell the production to the supermarket.

Besides the mentioned distribution channels the informants were also asked about the ways of ensuring their sales. The range of choice has been:
a) under long term contract for more than one year
b) under short term contract in the given year
c) according to the occasional demand
d) other

The mentioned ways of ensuring the sale were again detected for the individual commodities. The sale of winter wheat is ensured by the long term contracts and partially also by short term contracts. Spelt is sold mainly under short term contracts (75%), the rest of informants sold according to the occasional demand. Short term contracts and occasional demand are the main ways of sale for winter barley, spelt and oat. The sale of triticale is ensured by both short term and long term contracts. Buckwheat is sold under the short term contracts, potatoes entirely according to the occasional demand. The long term contracts are, on the other hand, typical for ensuring the sale of the marrow. The situation of wine is heterogeneous, short term contracts dominate, but there is also mentioned the sale according to the occasional demand.

In the case of animal products, there is also not possible to determine the most convenient way of distribution because the informants did not enlist all the range of choice. In the case of beef-cattle, 60% of informants contract with their subscribers short-term contracts, only 2 informants marked their contracts as long-term, 40% of informants use for the sales of their products meeting of the occasional demand. Only a little part of milk production is realized haphazard, the bulk of sales are ensured by short-term contracts. The lamb meat and goat milk, on the other hand, meet the occasional demand.

The last task that was solved in the questionnaire was, if the organically produced products are sold as organic products or conventional products. All of the organic plant products with exception of triticale and partially winter wheat are sold as organic products. A worse situation is with the organic animal products. These products are only rarely bought out as organic products, the absolute majority of them is sold as conventional products. The main reason is the insufficient processors capacity for organic milk and meat.

With the sale problem, there are also connected prices that organic producers get for their products. Generally it could be supposed that organic products will be sold with respect to their quality, for a higher price than the conventional ones. The reality for the single products is however different, what could be seen from Table 2.

In the selected file of the organic farmers, it is possible to part the products according to the comparison with the prices of conventional products into two groups. The first one is the organic products with prices higher than conventional products. This group takes in the spelt, rye, potatoes and beef-cattle. These products are mainly realised as certified organic products.

Table 1. The distribution and sale ways of the chosen organic products during 2001 and 2005

	Winter wheat	Spelt	Potatoes	Marrow	Cow's milk	Beef
1. The sale ways of the products:						
a) direct sale from the yard			x		x	
b) direct sale on the market place			x			
c) healthy food shops						
d) supermarkets						
e) to the processors	x	x		x	x	x
f) other way, state what kind of way:						
feed			x			
2. The sale is realized mainly on the base of:						
a) long-term contracts (for more than one year)				x		x
b) short-term contracts for the actual year	x	x	x			x
c) according to the occasional demand	x		x		x	x
d) other way, state what kind of way:						
3. Are the products sold as organic or as conventional?						
a) as organic	x	x	x	x	x	x
b) as conventional	x				x	x

Table 2. Average exercise prices for the production unit of plant and animal production (Czech crowns)

Product	Average prices of the organic products				Basic indices		
	2002	2003	2004	2005	2003	2004	2005
Winter wheat	2 834	4 185	2 786	3 140	1.4767	0.9831	1.1080
Spelt	6 693	7 186	7 092	7 074	1.0737	1.0596	1.0570
Oat	2 715	3 139	3 573	2 887	1.1562	1.3160	1.0633
Rye	4 313	4 158	4 100	2 428	0.9641	0.9506	0.5630
Triticale	2 337	4 139	2 544	2 420	1.7711	1.0886	1.0355
Potatoes	5 504	5 785	5 208	3 710	1.0511	0.9462	0.6741
Buckwheat	8 982	8 896	10 197	9 531	0.9904	1.1353	1.0611
Marrow	72 524	72 524	60 018	78 144	1.0000	0.8276	1.0775
Cow milk	7.86	7.76	8.50	8.07	0.9873	1.0814	1.0268
Beef-cattle	49.97	43.49	42.91	49.93	0.8703	0.8587	0.9991
	Average prices of the conventional products				Basic indices		
	2002	2003	2004	2005	2003	2004	2005
Winter wheat	2 939	3 304	3 096	2 512	1.1242	1.0534	0.8547
Spelt	2 939	3 304	3 096	2 512	1.1242	1.0534	0.8547
Oat	3 758	3 020	3 258	2 286	0.8036	0.8670	0.6083
Rye	3 225	3 466	3 181	2 595	1.0747	0.9864	0.8047
Triticale	2 541	2 718	2 546	2 244	1.0697	1.0020	0.8831
Potatoes	3 307	3 703	2 978	2 088	1.1197	0.9005	–.
Buckwheat	–	–	–	–	–	–	–
Marrow	–	–	–	–	–	–	–
Cow milk	8.16	7.83	8.08	8.28	0.9596	0.9902	0.0147
Beef-cattle	36.28	35.18	37.17	40.84	0.9697	1.0245	1.1257

The second group is made by organic products with prices lower than the conventional products or similar to them. This group takes in oat, winter wheat, and triticale and except of 2003, also cow milk. In the case of cereals, this situation could be explained by the fact that these crops are mainly used as feed. Organic milk is mainly sold as conventional milk because of the above mentioned lack of processing capacities.

Factors influencing the consumer's interest in organic products

For the purpose of a detailed recognition of grounds leading to the purchase of organic products, the research through the structured questionnaire was made. The number of informants was 1.306. Informants came from different places of the Czech Republic and also from different sized cities (Živělová 2007).

The data were edited in the programme Microsoft Excel. The questionnaires were subsequently worked up the with help of the software Unistat 5.1. Data were primary sorted into the frequency distribution table and subsequently, in the case of questions in

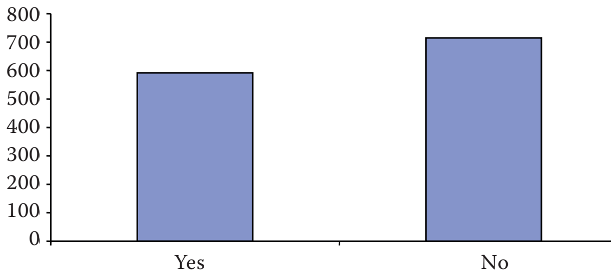

Figure 1. Do you buy organic products?

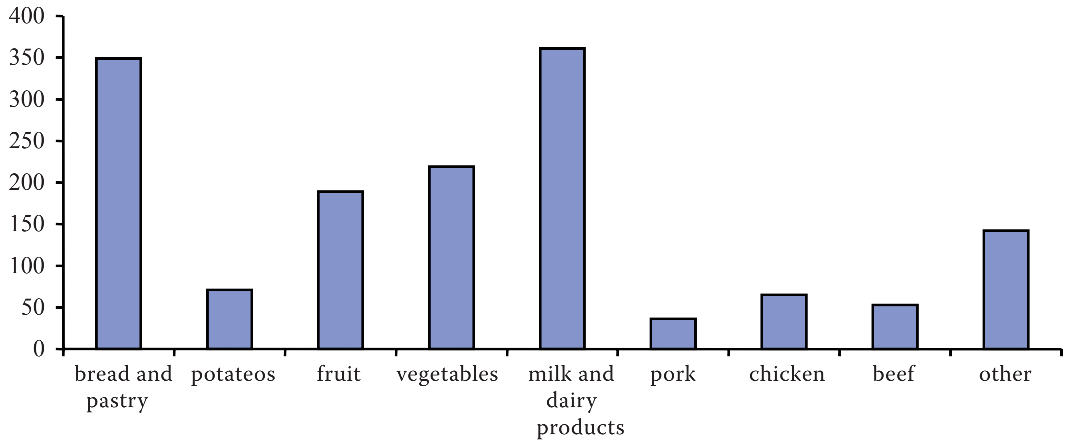

Figure 2. The assortment of purchased products

which it was possible, the relations were observed with the help of contingent table. To the evaluation of the qualitative data relations, the characteristics Pearson's contingent coefficient and Cramer's coefficient were used.

If the consumers buy organic foodstuff, the assortment of the bought products was detected, as well as the frequency of purchase, incentives for purchase and the source of information about organic foodstuff.

The group of non-buyers of organic foodstuff prevails a little in the total amount of informants (Figure 1). Among the main reasons of the lack of interest in organic foodstuff, there belongs mainly their higher price compared to the conventional products (59%). Other reasons create a much lower ratio on decision-making. These reasons were the unacquaintance of the purchase places, unacquaintance of the organic products, insufficient assortment of organic products, no availability especially, distrust of the quality of organic products and insufficient advertisement.

29% of informants regularly buy organic foodstuff and that mainly once a week, in the lower ratio more often, resp. less often.

The assortment of purchased products is very heterogeneous (Figure 2). The most consumed organic products are milk and dairy products, bread and pastry that are purchased by 55% of consumers. There is also an increase in the number of consumers of organic vegetables (37%) and organic fruit (32%). From the organic meat, the most purchased item is chicken and beef, the lowest ratio has got pork (6%). Consumers also buy organic potatoes (12%). The assortment of other mentioned foodstuff is quite wide and includes pulses, pastry, flour, buckwheat, oat flakes, teas, coffee, chocolate and wine.

The presumptions for a higher purchase of organic foodstuff are presented in Figure 3. The main presumption is the price decrease that is mentioned by 55% of informants. Second often mentioned presumption is also the widening of the sales places what would be welcomed by 39% of informants. 25% of informants mention the widening of the assortment of organic products. To the other mentioned reasons, there belong a more intensive propagation of organic products, a higher ratio of Czech products and a more attractive packing of organic products.

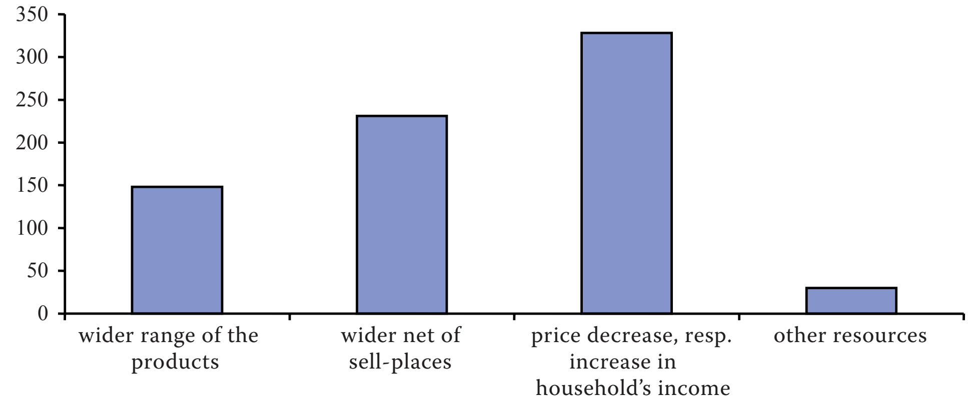

Figure 3. Presumptions for higher purchase of organic products

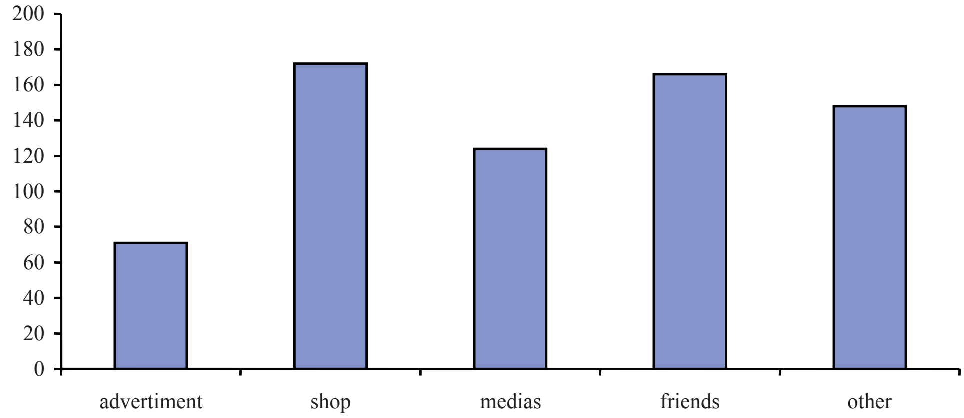

Figure 4. Information sources about organic products

To the increase in customer's interest in organic products, there is also related the customer's awareness. The informants were also asked on the source of information about organic products. The main source is advertisement, shops, media, consumers of organic products, eventually other sources. The overview about the information sources is stated in Figure 4. The highest ratio of informants get the information about organic foodstuff directly in the shop (29%) or from a friend (28%). 27% get the information from media and 12% from an advertisement. As other sources, there are mentioned school, courses and seminars, magazines, newspapers, internet, medical attendance or direct visit on organic farm.

Interesting are also the stated reason for the purchase of organic products. They show the way of the customer's motivation for an increase in interest of organic products. The effort for healthy nutrition is preferred by 58% of informants. Other reasons are the lack of chemicals, preference of healthy life style, nature conservation and support of domestic producers of organic products.

Factors influencing the seller's of organic products

Other group in which the interest in organic products was probed were sellers. Together 48 shops were interviewed by the form of questionnaires. The structure was: 23 supermarkets and hypermarkets (different premises in different places of the Czech Republic of Interspar, Globus, Billa-Rewe, Delvita, Carrefour, Hypernova, Julius Meinl, Penny market and Albert), 16 shops with healthy food, 3 specialized shops with organic products, 5 common shops and 1 vegetarian restaurant that also sells the organic products.

The most experienced with organic products were healthy food shops that also have got the widest assortment of organic products. Most of these shops offer the organic products for longer than 10 years; however, there are also shops that included organic products into their assortment 2 or 3 years ago. One of the common shops offers organic products for more than 10 years, others for 7 year and one for 4 years. From this, it is clear that organic products are in sellers' consciousness that try by this way to offer a wider assortment of products to their customers. Specialized shops with organic products are new shops that have started their working in the last years.

The assortment of the offered organic products is wide and positive is that this wide rage is not to be found only in the specialized shop, but also in supermarkets. A very wide range of organic products has the Delvita, however, it depends on the concrete premises. In the offer of different premises of this supermarket, we can find milk and dairy products, pork, chicken and beef, pate, bread and pastry, vegetables, wheat flour, rye and spelt flour, buckwheat, corn flakes, groats, millet, rice, flakes, lentils, teas, jams, juices, raisins, cereal biscuits, oil, coffee and wine. In interviewed premises of the Billa, there was not in the offer meat and milk, only dried fruit (apricots, banana flakes) and pumpkin seed. Other offered products are the same as in the Delvita. In the Interspar it is possible to buy only organic frozen vegetable, the Carrefour offered beef, pork and chicken. In the specialized shops with healthy food the assortment is very different. Some of these shops offer meat, including chicken, milk, dairy products, vegetable, fruit, potatoes, bread and pastry, in other shops the assortment is significantly narrower, it consisted only from pulses, buck wheat, flakes, groats, flour, pastries etc. In principle all the above mentioned products are offered in specialized shops with organic products, but they do not have beef in their offer. Common shops with conventional foodstuff offer altogether only pulses.

The rate of organic products in total sales is in the interviewed shops very different. All the shops with healthy food assign the rate on sales from 10 up to 60%. Only in the case of one informant this ratio was only 1–2%. A similar ratio is mentioned in the case of shops with conventional food. In the case of the Delvita and Billa supermarkets, this ratio is 4–5%, in the Interspar, however, only 0.3%. Interesting is that in the vegetarian restaurant that offers also the sale of organic products, the ratio of organic products on sales is 25%. In specialized shops with organic foodstuff the ratio of organic sales is 90%, however, in another one only 1/3 of total sales. This result is quite inconsistent and sets a question, if there is a sufficient promotion of these products that should be the core of this shop.

The most marketed organic products in the shops with healthy food are flour, dried fruit, flakes, rice, pastries, pastry, teas, yoghurts, milk and juices. There is absolutely no meat among the most marketed items, what indicated the fact that customers are not willing to pay a much higher price for organic meat compared to the conventional one. The representatives of these shops draw attention to the fact that the most marketed item depends on what is promoted in the shop. If there is some in-store tasting, the most market product is the tasted one. In the supermarkets, the most demanded are milk and flour, eventually molasses and juices. In the specialized organic shops, the highest interest is in goat's milk products, tofu cheese, tofu salads, oil, honey as well as four, pastries and flakes. The most favourite organic products in the conventional shops are beans and soya.

The main supplier for the interviewed shops is unambiguously the PRO-BIO Staré Město pod Sněžníkem. Other big suppliers are the Country Life and the Natural Jihlava. Mentioned are also other suppliers and that mainly Sluneční brána (Sun gate), further Polabské mlékárny (dairy works), Fyton Jihlava, Sunfood Dobruška, Vega, Mafertreit, SIVO and BIO-NEBIO. All the conventional shops purchase their organic part of assortment from the PRO-BIO.

To the main form of promotion in the specialized shops, there belong mainly the in-store tasting, demo actions, lessons, offer of receipts for organic foodstuff, leaflets situated in the shops and specialized lessons. Part of the sellers, however, regards all the promotion as useless because of the fact that the organic products fill-in the principles of healthy life style according to the modern trends of the present society and therefore need no special promotion. Similar opinion is to be found by the representatives of conventional shops. In the supermarket, there is as a sufficient promotion regarded the placing of the organic foodstuff in separate shelf close to the cases on which are customers specially pointed out.

The possibilities of the increase in organic products sales depend on the supply widening. There is mainly the lack of meat; on the other side, there is a higher price of meat that discourages the consumers. The sale increase possibilities depend on the purchasing power of the society connected with the level of their incomes and the prices of the offered organic products. Interesting is also the recommendation to sell the organic products in smaller packagings. As a main factor is, however, regarded the increase in customers' awareness. This is closely associated with the forms of propagation of organic products, mainly in the TV and press. Sellers pointed out that organic products have a future but it is necessary to familiarize customers with organic products and to explain their advantages compared to the conventional products.

A higher price of organic products compared to the conventional ones is thought of as a big problem. These prices discourage a lot of consumers from the purchase of organic products. As a potentially big group of organic products consumers, there could be regarded families with children and young people professing healthy life style to which undoubtedly the organic products belong. Mainly these groups should be reached out by the specific promotion.

The majority of sellers ensure their own promotion of organic products. To the main forms of promotion belong, there in-store tastings and leaflets. Tastings are organized by the suppliers. In supermarkets and hypermarkets, they are managed centrally. Healthy life style shops prefer personal relationship with customers and the effort for their maintenance. The specialized shop with organic products offers also information by phone.

CONCLUSION

The widening of organic products market is influenced by a wide range of factors connected both with supply and demand for organic products. We can see some progress on the supply side of the market, regarding the distribution channels and the way of sale. For the supply increase and reform of its structure to the level common in the developed EU states, it is possible to account by the experience of these countries. There are a lot of measures used in the EU states for organic agriculture support. These measures are aimed both at producers and consumers, in some cases to both these groups.

The measures aimed mainly at producers cover mainly the sophisticated system of individual- and public consultancy. These activities in consequence increase the organic farmer's awareness. Organic farmers in addition become, as well as the advisors, free information materials. Education and information system is very advanced. Finland could be used as an example, when in Finland there is a lot of courses and educations for farmers – entrepreneurs. The university in Helsinki is continually offering courses of organic agriculture. This access could be evaluated as systematic and sophisticated. The contemporary state of education in the Czech Republic could be improved with this experience.

For the demand increase, there could be in different countries enforced different measures, associated mainly with the customers' education and increase in their awareness about the quality of organic products and their contribution to human health. To these measures there is attached a big significance and they are reason why the organic market is already quite developed in some countries. The customers' awareness is also in the interest of market chains that, in some states – e.g. in Switzerland, finance the advertise campaigns for organic products by themselves. Experiences show this way as a very effectual. A very sophisticated way of advertising of organic products is in Norway. Organic farmers themselves advertise their products directly in supermarkets in a way of in-store tasting and inform customers also about the way of production of organic products.

A big sense both for producers and customers does have a built-up of exemplary organic farms where organic farmers could obtain tips and experiences and customers the idea about the organic way of production. These farms act also for research purposes, eventually for students' education. Also ecological organizations could verify their procedures there.

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