

## CONSUMER BEHAVIOUR AND INFORMATION ON ORGANIC AND HYGIENE PRODUCTS

IRINI TZIMITRA KALOGIANNI (\*) - AFRODITI PAPADAKI-KLAVDIANOU (\*\*) -  
EFTHIMIA TSAKIRIDOU (\*\*\*)

**C**AP reform in 1992 mainly focused on reorganization of the market of agricultural products, as well as to orient agricultural production towards a new direction, where farming activity would contribute to a balance settlement between economic targets and physical environment preservation.

An additional consideration of this reform was consumers' preferences for the so called «quality products». The meaning «quality» includes a wide range of attitudes and behaviour such as local market, quality brand labels but above all organic products. This

demand derived from an increased interest and awareness of European consumers that 'conventional' products are produced by the excessive use of agrochemical for fertilization, soil improvement and plant protection. In addition, organic products' demand can be attributed to a broader movement targeted on preservation and protection of the environment, which is highly influenced by farming activities. Organic farming appears to be a promising perspective towards this direction as: a) organic products considered to have no chemical residues and b) is an alternative solution for problems derived from farming activity re-assessment.

According to market research studies (Sekkas, 1995), the most preferable organic products appear to be fruits, vegetables and cereals, followed by olive oil, wine and dairy products. Moreover, hopeful prospects present a 2.5-3% percentage of organic products in the total EU market by the age of 2000 (Sekkas, 1995).

In this paper an attempt is made to examine Greek con-

### ABSTRACT

Organic products and hygiene foods appear to be a new perspective for Greek agriculture and market. Considering that Greece has a comparative advantage of producing these type of food, organic farming arises as a promising alternative. However, a strategic plan needs to be scheduled for the market side of these products. In this paper an attempt is made to identify consumers' level of awareness and attitudes towards organic and hygiene products. Results indicate that the most willing and therefore promising consumers are the youngest with a relatively higher educational level.

### RÉSUMÉ

*Les produits biologiques et naturels représentent une nouvelle perspective pour l'agriculture et le marché grecs. Considérant que la Grèce a un avantage comparatif dans la production de ces types d'aliments, l'agriculture biologique se pose en tant qu'alternative prometteuse. Il s'impose, quand même, un plan stratégique pour le marché de ces produits. Dans ce travail, on essaie d'identifier le niveau de prise de conscience du consommateur et ses attitudes vis-à-vis des produits biologiques organiques et naturels. Les résultats indiquent que les consommateurs les plus disposés et, donc, les plus prometteurs, sont les plus jeunes ayant un niveau d'instruction relativement supérieur.*

sumers' level of information and attitudes towards organic products and hygiene products as well. Organic farming produces hygiene products with respect to the environment as it reduces the use of agrochemical and contributes to the less intensive farming practices. Moreover, organic products' prices are higher compared with conventional ones.

### ORGANIC PRODUCTS IN GREECE

The Greek Ministry of Agriculture taking into account: a) the E.U. Regulation 2091/92, b) that consumers ask more and more hy-

giene foods from organic production methods, c) that trustworthiness of these products needs to be developed to consumers, charged the Direction of manufacture, standardization and quality control of the Ministry of Agriculture with the implementation of reg. 2091/92. Furthermore, Greek Union of Ecological Agriculture and the Organization of Certification and Control of Biological Products relegated to certify the 'organic' production of these products.

In 1994 the total organically cultivated area reached 16877 stremmas (1687.7 ha), representing 0.042 percent of the total area used in agriculture. Olive, cotton and viniculture are the dominant crops, followed by citrus trees and vegetables (Zoulakis, 1996).

The marketing system of organic products in Greece is not substantially organized. Domestic fresh products are directly provided from producers to consumers in open markets, when a lower percentage channeled to hygiene shops (Fotopoulos, 1994). Concerning organic processing products, processors and their unions directly sell them to consumers, while a smaller percentage is exported to Northern European countries (Zoulakis, 1996). Greece imports organic products as well. The later are provided through wholesalers to hygiene shops and finally to consumers (Kaldis and

(\*) Assistant Professor, Department of Agr. Economics, Aristotle University of Thessaloniki, Greece.

(\*\*) Associate Professor, Department of Agr. Economics, Aristotle University of Thessaloniki, Greece.

(\*\*\*) Ph.D. Candidate, Department of Agr. Economics, Aristotle University of Thessaloniki, Greece.



Gardelli, 1996). Considering the Greek market of hygiene products, the majority of them are imported by 85 percent from EU countries (mainly from U.K., Belgium and Netherlands). The remained 15 percent are either produced in Greece or imported but labeled in Greece. In addition the most available fresh products are fruits, vegetables and greens.

Retail prices of organic products appear to be until 40 percent higher compared to conventional ones. As Kaldis and Gardelli (1996) stated, higher prices can be attributed to higher production cost, reduced yields, distribution cost, packaging cost, etc.

#### LITERATURE REVIEW

##### Theory

Marketing is defined as «a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others» (Kotler, 1991). On the hand consumer behavior plays important role in all marketing functions. It is also very important about health and nutrition for human beings. Knowledge of consumer behavior to food can help governments to plan their policies. As a result, producers and consumers are satisfied «and when these people prosper, the entire country prospers as well» (Kamenidis, 1985).

Consumer attempts to satisfy different wants. So he selects one product instead of another. These wants are classified on their levels. The first level includes latent passive and active wants. The second level includes habit, choice behavior, intrinsic preference and extrinsic preference; and the third level includes economic reasons, technical reasons, social reasons, legalistic reasons and adaptive reasons (Holbrook et al, 1986).

There are a lot of definitions about consumer behaviour. One of them says: «Consumer behavior is the way by which people react in an exchange proceeding» (Siomkos, 1994). Magnisalis (1981) considers that consumers make their decision after the influence of anthropological, educational, sociological, economic, natural and communicational factors, which act together on the personal psychology that makes them decide whether to buy a product or service or not.

Attitude is a positive or negative reaction to a person, object or situation (Magnisalis, 1981), which is strongly influenced by the adequate information. In marketing surveys, attitudes are used to predict the future consumer behavior to new products or different promotional campaigns.

On the other hand, public opinion, like beliefs or attitudes, play a very important role in policy, like in consumer legislation.

According to organic or natural food (referred to veg-

etables), results show that there is a «lack of difference in acceptance due to growing conditions». Consumers do not have higher acceptability «when purchasing an organically grown product» (Schutz et al, 1976).

Consumers should be informed about the relationship between organic products and health-environment, where they can find these products, and how much they have to pay for them (Fotopoulos, 1996).

According to Homer and Kahle (1988), consumer attitudes about nutrition and healthy foods influence their buying behaviour. More precisely, positive purchase decisions are closely related to consumers' sensitivity on diet issues. A USA survey (Nutrition Week, 1991) underlined that consumers seemed to be skeptical regarding the nutritive value of organic products, supporting that no clarified preference in taste exists between organic and conventional foods.

Consumers are interested in food safety, so government agencies must give clear and specific advice about them (Beharrel et al, 1991). Consumers in general plan to buy organic foods and they are willing to pay a premium for this type of food products. In adverse, consumers need to have information about the freshness of the items and to see the certification that the products are indeed organic. Furthermore, fruits and vegetables have the highest degree of purchase, compared to chicken, beef and eggs as they are more available than the latter (Jolly et al, 1989).

Consumers need better information about the meaning and certification of organic status (Park and Lohr, 1996). As Hutchins and Greenhalgh (1997) stated, consumers are confused about the meaning of the term 'organic'. Therefore, a strategy which promotes the 'environmentally friendly' aspect of organic produce (instead of focusing on the 'organic' label) needs to be considered.

Thimm et al (1992) also pointed out that product attributes such as quality, freshness, personal preference, taste, nutritive value, safety, physical appearance, price and availability are the most important attributes which encourage people to buy organic foods.

Finally, a review of the Greek literature concluded that a scant number of surveys have been conducted concerning consumer attitudes and preferences about organic products. In particular, a survey that took place in Athens oriented the issue to price characteristics of organic food (Kaldis and Gardelli, 1996). It was found out that prices varied from about the same to twenty percent higher compared to those of conventional products.

According to several survey data (Patsis and Papadopoulos, 1994), Greek consumers appear to be unaware of organic products. However, they express a very positive attitude towards these products if they are given information and clarification regarding the special attributes of these products. In addition, they appear to be more sensitive in relation to hygiene diet, nutritive

value and purity of food (Patsis and Papadopoulos, 1994).

In most of the developed countries, there is a tendency derived from changes in consumer attitudes after they become aware of and informed about hygiene and organic products.

This tendency results on one hand in reduce the influence of economic factors that determine consumption behaviour. On the other hand it positively contributes to the development of optimum consumption conditions for organic products (Sekkas, 1995).

European Commission Action Program for Consumer Policy defined the following priorities for the period 1996-1998 (EUR-OP, NEWS, 3/1997):

- consumer education and awareness improvement,
- protection of consumer interests,
- measures which help consumers to benefit from 'information society possibilities'
- improve consumers' confidence in foods.

#### RESEARCH OBJECTIVE

The objectives of the present survey can be summarized as follows:

- survey consumers' awareness and regular information about hygiene products, organic products and distribution channels,
- examine consumers' evaluation and consumption of organic and hygiene food.

The above will contribute to provide information about the existence and expansion of these products in the Greek market.

#### METHODOLOGY

##### Questionnaire design

The design of the questionnaire, which was addressed to consumers that consume hygiene food was based on previous research work (Chisnall, 1986; Crimp, 1985). Most of the questions had the Likert scale form (Crimp, 1985; Chisnall, 1986).

The five scales were scored 5,4,3,2,1, from favorable to unfavorable statements. Questionnaire included the following sections:

- Demographic characteristics
- Information-Awareness-Response to hygiene products
- Distribution channels
- Consumption-Evaluation of hygiene products

##### Data collection - Analysis

Data were collected using the personal interview method.

The sample was random, determined by consumers who visited five (5) hygiene shops in the metropolitan area of Thessaloniki for three (3) days. A total of 104 people were interviewed and 104 usable questionnaires were provided. The analysis of the sample was done

using the SPSS statistical package. Descriptive statistics (percentages) were used for results presentation.

## FINDINGS

### Demographic data

The majority of the respondents were women (65), were men represented the 37.5 percent of the sample. Regarding age, the most representative one appears to be the class between 26 to 35 years (46 percent) (**figure 1**). Among the respondents 57 percent were single and 40 percent married. A total of 42 percent of the respondents were private or civil servants, 24 percent had their own business, while the remained 37 percent consisted of pensioners, housekeepers and university candidates. The distribution of the sample according to level of education (**figure 2**) resulted in 60 percent

higher educated people (university or college education) and 40 percent of standard educated people (first level of education). Moreover, the majority of the respondents appeared to have a monthly income between 150001 to 250000 drs (536-893\$ U.S.A.).

### Consumers' level of awareness and response to hygiene and organic products

According to **table 1**, respondents appear to be aware of hygiene products (93%). However, the majority of them (58 percent) does not know organic products, probably due to the fact that these products are not labeled in the Greek market. The sample of consumers that is included in the present survey is widely consume hygiene products but narrowly organic products (**table 2**). Many are the respondents who are intended to taste hygiene and organic products (among those who have

not tasted at all), although 25 of them are not at all willing to try these foods (**table 3**).

### Distribution channels

Most of the consumers prefer to buy organic or hygiene products from supermarkets (35 percent) or special shops (31 percent) (**table 4**). In addition, respondents prefer to visit shops near their neighborhood (55 percent) (**table 5**). The latest is a promising point in the development of the market of these products, as it can be expanded by new shops, in respondents' place of residence.

### Evaluation-consumption of hygiene and organic foods

Both organic and hygiene products have not received an important percentage in consumers diet. Their level of use appears to be medium or low (73 percent of the respondents do not widely consume them) according to **table 6**, while 20 percent of consumers do not consume them at all.

Considering specific attributes of these food categories, it is believed that they help to control the body weight (65 percent agrees), are strongly related to better health, euphoria and longevity (92%, 61% and 68% respectively) (**table 7**). Respondents of the whole survey area consider hygiene and organic products to be expensive to highly expensive (81 percent) (**table 8**).

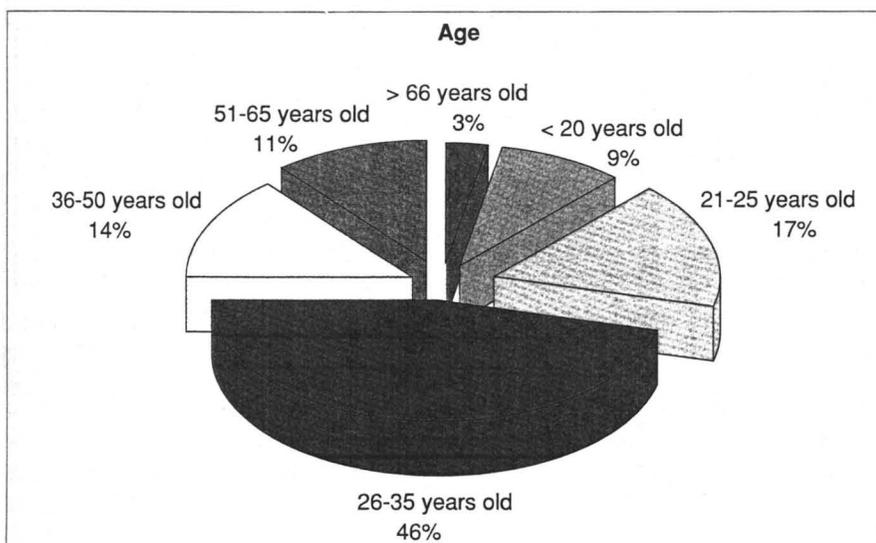


Figure 1 - Consumers' age.

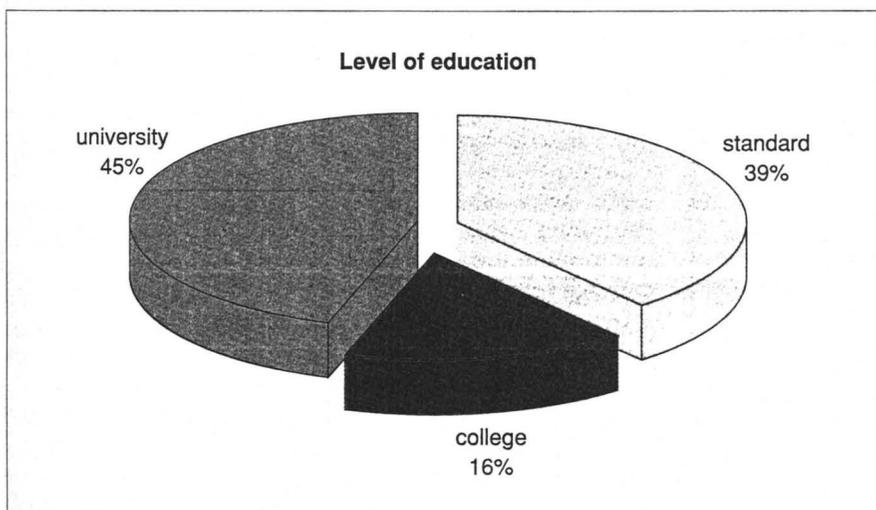


Figure 2 - Consumers' level of education.

**Table 1 Knowledge about hygiene and organic products (1996).**

Products	No. of Respondents		
	Yes	No	Total
Hygiene products	96 (93.0)	8 (7.0)	104 (100.0)
Organic products	44 (42.0)	60 (58.0)	104 (100.0)

\* figures in parentheses indicate % percentages of the total sample.

**Table 2 Consumption of hygiene and organic products (1996).**

Products	No. of Respondents		
	Yes	No.	Total
Hygiene products	69 (66.0)*	35 (34.0)	104 (100.0)
Organic products	30 (27.0)	74 (73.0)	104 (100.0)

\* figures in parentheses indicate % percentages of the total sample.

**Table 3 Consumers' willingness to try hygiene and organic products (among those who do not consume these products).**

Attitude	No. of Respondents
Yes	49 (66.0)*
No	25 (34.0)
Total	104 (100.0)

\* figures in parentheses indicate % percentages of the total sample.

**Table 4 Hygiene and organic products, place of purchasing.**

	No. of Respondents
Special shops	41 (31.0)*
Producers	11 (8.0)
Drugstores	17 (13.0)
Supermarkets	46 (35.0)
Own production	12 (9.0)
Others	4 (4.0)
Total	104 100.0

\* figures in parentheses indicate % percentages of the total sample.

**Table 5 Hygiene and organic shops' vicinity to consumers' place of residence.**

Shop's vicinity	No. of Respondents
Yes	57 (55.0)*
No	47 (45.0)
Total	104 (100.0)

\* figures in parentheses indicate % percentages of the total sample.

**Table 6 Hygiene and organic products place level of use in consumer diet.**

Level of use	No. of Respondents
Maximum	7 (7.0)
Medium	39 (38.0)*
Small	36 (35.0)
Never	22 (20.0)
Total	104 100.0

\* figures in parentheses indicate % percentages of the total sample.

tion and attitudes towards organic and hygiene products can be pinpointed to the following:

- Consumers who visit hygiene shops usually are young people (26-35 years old).
  - Their level of education is rather high, compared to the mean educational level in Greece.
  - Consumers appear to be aware of hygiene products contrary to organic products for which the majority of them express unfamiliarity.
  - Many consumers express willingness to taste hygiene and organic foods.
  - Supermarkets and special hygiene shops are the most preferable places of purchase for these products.
  - Shops vicinity to consumers' place of residence appears also to contribute to organic and hygiene products acquisition.
  - The level of use of the considered products in respondents' whole diet was found to deviate from medium to minimum, despite their young age and high educational level.
  - Consumers agree that organic and hygiene products have a positive effect on body weight control, better health, euphoria and longevity.
  - Considering prices of these products, respondents stated that they are in general very expensive.
- Undoubtedly, the economically and ecologically expansion of organic products in the «conventional market of agricultural products and food» has internationally a

## CONCLUSIONS

The main points concluding from the present study and are related to consumers' level of awareness, consump-

**Table 7 Consumers' statement regarding hygiene and organic products.**

Consumers' statements: hygiene products	Absolutely agree %	Agree%	Neither agree nor disagree %	Disagree %	Absolutely disagree %	Total
help to control body weight	23.0	42.0	24.0	7.0	4.0	100.0
contribute to a better health	55.0	37.0	7.0	1.0	0.0	100.0
give a sense of euphoria	21.0	40.0	34.0	5.0	0.0	100.0
give longevity	36.0	32.0	27.0	3.0	2.0	100.0

\* figures in parentheses indicate % percentages of the total sample.

**Table 8 Consumer' opinion about hygiene and organic products' prices.**

Hygiene and organic products are:	No. of Respondents
Very expensive	20 (17.0)*
Expensive	72 (64.0)
Inexpensive	12 (19.0)
Total	104 100.0

\* figures in parentheses indicate % percentages of the total sample.

long way to cover. Specifically, the Greek market of organic products covers only a slight percentage of the total domestic production.

Consequently, effective measures are needed based on both the production and the market point of view. Consideration should be given to the economy of production, as well as to the acceptance and conscious demand of organic products from consumers.

A first step to this direction can be a «social acceptance strategy» or «organic marketing», which is identified by Scientific, National and Agricultural Organizations, as well as by Consumer Safety Centers.

The role of «social acceptance strategy» can be focused on promoting and developing organic farming in Greece; simultaneously, informing and stimulating Greek consumers to realize how valuable are organic foods for health, diet and protection and conservation of sustainable resources. ●

## REFERENCES

- Beharrell and J.H. MacFie (1988): Consumer attitudes to Organic Foods. *British Food Journal*, Vol.93(2), pp. 25-30.
- Chisnall, P.M. (1986): *Marketing Research*. McGraw-Hill Book Company (UK) Ltd., 3rd edition.
- Crimp, M. (1985): *The marketing Research Process*. Prentice-Hall International (UK) Ltd., 2nd edition.
- Consumer, Seller Surveys Show Barriers to Organics (1991), *Nutrition Week*, Washington, D.C.: Community Nutrition Institute, 21, April 5, pp. 2-3.

EUROPE NEWS, 3 / 1997, p. 4.

Fotopoulos, C. (1996): Strategic planning for expansion of the market for organic products, *Agricultura Mediteranean*. Vol.126, pp. 260-269

Freund, S.E. (1984): *Modern Elementary Statistics*, Prentice-Hall International editions, 6th edition.

Holbrook, M.E., Lehmann, D.R. and O'Shaughnessy, J. (1986): Using Versus Choosing: The relationship of the Consumption Experience to Reasons for Purchasing. *European Journal of Marketing*, Vol. 20(8), pp. 49-62.

Homer, M.P. and Kahle, R.L. (1988): «A Structural Equation Test of the Value - Attitude - Behaviour Hierarchy». *Journal of Personality and Social Psychology*, Vol. 54(4), pp. 638-646.

Hutchins, R.K., and Greenhalgh, (1997): «Organic confusion: sustaining competitive advantage», *British Food Journal*, Vol. 99(9), pp. 336-338.

Jolly, D.A., Schutz H.G., Diaz-Knauf, K.V. and Johal, S. (1989): Organic Foods: Consumer Attitudes and Use. *Food Technology*, Vol. November 1989, pp. 60-66.

Kaldis, P. and Gardelli, C. (1996): «Market and Marketing Aspects of Organic Farming Products of Greece», in *Agro-Food SME's in a Large Integrated Economy*, Mattas, K., Papanagiotou, E. and Galanopoulos, K. (eds.), Wissenschaftsverlag Vauk Kiel, pp. 124-131.

Kamenidis, C.T. (1985): *Agricultural Economics-Agricultural Marketing*, Agricultural policy, Agricultural Cooperative. Aristotelian University of Thessaloniki Press, Thessaloniki.

Kotler, Ph., Armstrong G., (1991): *Principles of Marketing*, Prentice-Hall International editions, 5th edition.

Magnissalis, K.G. (1981): *Business Administration, Consumeristics - Technique of Consumer Behaviour Knowledge*. Tyrovolas T.P., Interbooks Publications, Athens.

Park, T.A. and Lohr, L. (1996): «Supply and Demand factors for Organic Produce», *Amer. J. of Agricultural Economics*, Vol. 78 (August), pp. 647-655.

Patsis and Papadopoulos (1994): «Organic Products from Consumers' Aspect», in *Proceedings of the 3rd Hellenic Conference of Agricultural Economics*, Athens (in Greek), pp. 377-384.

Sekkas, F. (1995): «A new production of inarguable quality and origin», in *Food and Beverages Fair*, Thessaloniki, Greek Ministry of Agriculture, Dept. of Agr. Extension (in Greek).

Schutz, H.G. and Lorenz, O.A. (1976): Consumer preferences for vegetables grown under «commercial» and «organic» conditions. *Journal of Food Science*, Vol.41, pp. 70-73.

Siomkos, G.I. (1994): *Consumer Behavior and Marketing Strategy*. Volume A and B, Stamoulis editions, Athens-Pireas.

Thimm, C., Karst, C. and Schart, J. (1992): «New Marketing Opportunities for Organic Produce in Northern Europe», a study for the EU Commission, pp. 3-33.

Zoulakis, K., (1996): «Organic Farming Perspectives in Greece», in *Kathimerini*, 01/09/1996.