



Code of Practice for organic food processing - ProOrg

Guidelines for Consumer Communication

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Aim of these guidelines

While food additives permitted for organic processing are largely regulated within the EU organic regulation, this is not the case for food processing technologies. This Code of Practice is supposed to guide processors in their choice for the most suitable processing methods for organic food. For this purpose, an assessment framework and management guidelines have been developed. As a third component, these communication guidelines focus on the interaction with consumers. They give an idea of how to deal with consumers' expectations on food processing.

There are many reasons for processing food, such as increasing shelf life, increasing the variety of food products, improving nutritional quality, or increasing the degree of convenience. Many of these aspects are largely in line with consumer expectations and demand.

It is obvious, and market data confirm this development, that also in the organic market, convenience food gains relevance. This development will be accelerated when organic markets are increasing and new (formerly conventional) consumer groups are asking for organic food. Simultaneously, naturalness and healthiness are important characteristics of organic food which indicate conflicting goals and various trade-offs which have to be considered.

These communication guidelines try to shed some light on consumer expectations and behaviour in this regard.

The target group of these communication guidelines are mainly organic food processors. The aims are:

- to improve processors' understanding of consumers' perception of processing technologies
- to support processors in the selection of processing technologies which are acceptable for/accepted by consumers
- to support processors in successfully communicating with consumers.

The structure of these guidelines follows selected leading questions:

A) Consumer behaviour

- A1 What do consumers know?
- A2 Why are consumers buying (processed) organic food?
- A3 What do consumers want when buying processed organic food?
- A4 How do consumers decide?
- A5 Which consumer segments exist?
- A6 How to select acceptable processing technologies for organic consumers?

B) Consumer communication

- B1 How to identify the target group?
- B2 How to communicate with consumers?
- B3 How to increase transparency?

These guidelines close with some important take-home messages.

A Consumer behaviour

A1 What do consumers know?

First of all, it has to be taken into account that consumer knowledge of and familiarity with organic food production and processing is very low and far away from the knowledge of processors or other actors within the food supply chain. There seems to be a preference of more familiar or traditional technologies for which knowledge might be higher. An important point is, that limited knowledge among consumers does not automatically mean that they want to know more or that they strive for additional information on processing. Instead, permanently faced with a huge amount of information, consumers have to select and to decide which information to ask for and to process.

For many consumers the terms ‘organic’ and ‘natural’ are closely related. That means that consumers often expect organic food to be more natural. When asked for ‘organic’ food processing or ‘organic’ processed food, consumer mostly refer to organic ingredients and raw material and to less additives. The fact that consumers mostly refer to ingredients and neglect processing technologies, is probably a consequence of a knowledge gap on food technologies in general and of modern and sophisticated technologies, often used in (conventional) food processing, in particular.

So, we can say that processing plays a somewhat hidden role in consumers’ purchase decision. Instead, the more tangible outcome is evaluated by consumers, such as taste, shelf-life, naturalness, freshness or price.

A2 Why are consumers buying (processed) organic food?

The reasons why people buy (processed) organic food are highly related with their more general wants and needs. Different levels apply and it can be distinguished between their preferences and motives to buy organic, which are more generally health and environmental protection, and their motives to buy *processed* organic food. Here, the motives are more complex and also often contradictory. Main reasons to prefer organic processed food over conventional processed food are:

- Healthiness
- Naturalness
- High product quality
- Lower perceived risk
- Environmentally friendly production?
- Better taste

→ Order and relevance open

→ Highly variable

Careful and **organic** processing seem to be closely related for consumers, both terms imply maintenance of nutrients and of naturalness. Careful processing means producing with care, with care being a basic value of organic production. Care refers to food quality, environment and human health¹, and implies few processing steps with few modifications of the food and

¹ Kilic, B., Dudinskaya, E.C, Proi, M., Naspetti, S., Zanolì, R. (2021): Are They Careful Enough? Testing Consumers' Perception of Alternative Processing Technologies on the Quality of Organic Food. *Nutrients*, 13, 2922, <https://doi.org/10.3390/nu13092922>

retention of the originality of the ingredients. It should be healthy, and ingredients, vitamins, and micro elements should be maintained and be of good taste. When it comes to processed organic food, the product quality seems sometimes to outweigh environmental effects. Asked for the understanding of the term 'careful', consumers were found to have very high, and partly unrealistic, expectations which can only hardly be fulfilled by processors. Here, again the lack of knowledge shows up.

Figure: Organic convenience



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A3 What do consumers want when buying processed organic food?

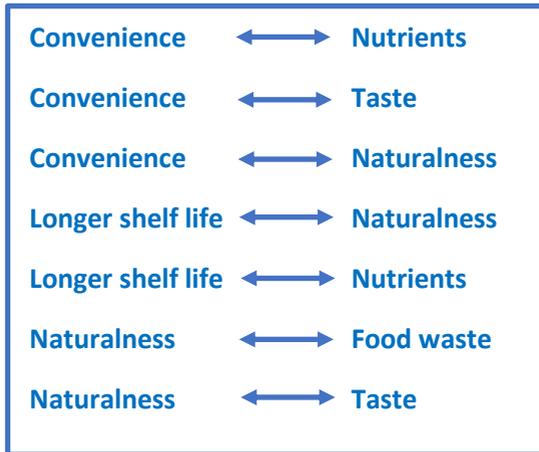
Let's start with having a look on the wide array of consumers' wants and needs for food and also for processed organic food. They want

- Organic ingredients
- Good taste
- High contents of nutrients
- Convenience and diversity
- Naturalness (organic is often perceived to be more natural)
- Environmental friendliness
- Minimal number of processing (steps)
- Physical/mechanical processing better accepted than chemical modifications/amendments
- Organic as less risky option → safer.

Of course, many of these attributes are conflicting and marked trade-offs exist, so that one attribute can only be achieved at the expense of another one.

Preferences and wants differ largely between consumers and even at the individual level marked trade-offs can be encountered.



Box: Trade-offs between product attributes

To give two examples how to interpret these trade-offs: a) a consumer might decide for a UHT milk due the advantages caused by longer shelf life although preferring consuming nutritious products; b) Consumers might prefer naturalness of their food but also like to eat organic chocolate.

This list is not complete, and it will become obvious that consumers' decision making, while facing these trade-offs, depends on individual preferences, on the product and on the very specific decision making and purchasing situation.

Consumers reactions to variation in quality due to the natural diversity of raw material are not clear and not investigated by now. Probably, a significant share of consumers would accept that kind of variation, given that naturalness is communicated adequately.

A4 How do consumers decide?

Consumer decision making is complex and sometimes seems to be driven by emotions and not by rationality. Theoretically, consumers are supposed to decide rationally which means that they do something like an internal cost-benefit evaluation of every purchase decision. Action or purchase takes place when perceived benefits are higher than perceived costs. The willingness and the capability to do such a cost-benefit evaluation clearly depends on the relevance of the purchase decision and of the consequences of making a good or wrong decision. Decisions which imply higher costs, i.e. which are more expensive, usually get more attention. The same applies when benefits are high. In food purchase decisions, many consumers behave habitually, they buy what they always bought. Costs of food purchase are mostly low since food is rather cheap, and there are no long-term consequences, e.g. food is usually consumed in a short time. The case changes somehow when health or environmental effects come into play and some consumers start to care more about their decision making, e.g. by looking for more information. In the frame of cost-benefit evaluation, the higher costs (product prices plus costs of information search) are justified by the higher expected benefit (quality product which is also produced sustainably).



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The perception of the benefits varies among people and is based on the individual assessment of different product criteria and their relevance. Different and contradicting product criteria may be part of the individual benefit function, e.g. naturalness and convenience, so that trade-offs have to be made. For the case of processing, this implies that naturalness can be compensated by a high degree of convenience, such as longer shelf life or by taste. And this might explain to a large degree, why consumer preferences are so divers and difficult to predict.

Figure: Milk offer in German supermarket



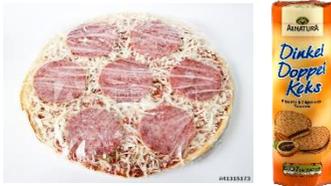
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A5 Which consumer segments exist?

It was mentioned already that various consumer wants and interests exist and that consumer preferences vary widely. Most generally it can be said that we have **Traditionalists** who accept only a low degree of processing and **Pragmatics** who are more convenience oriented.

Figure: Consumer segments

Organic pragmatics



Organic traditionalists



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Going a little bit more into depth, a recent study identified four different consumer segments²: convenience seekers, non-organic freshness and taste seekers, organics seekers, and origin seekers (table). These four segments have been found in a consumer study on organic milk with different forms of preservation (fresh milk, ESL, HPP, UHT). It should be considered that consumer segments are highly dependent on the specific product.

² Meier, C., Stolz, H., Koch, K. (2021): WP6: Consumer acceptance, preferences, and communication. Report on the outcome of the quantitative consumer survey (D.6.2). Fibl, Frick.

Table: Consumer segments for processed organic foods, example milk

Segment	Preferences	Buying organic
Convenience seekers	<ul style="list-style-type: none"> • Taste • Shelf-life • Low fat • Price 	Occasionally
Non-organic freshness and taste seekers	<ul style="list-style-type: none"> • Freshness • Taste • Shelf life • Fat content • Price 	No
Organic seekers	<ul style="list-style-type: none"> • Organic • Regional/local • Freshness • Taste 	Yes
Origin seekers	<ul style="list-style-type: none"> • Region • Country • Freshness • Shelf life 	Occasionally

The growth of the organic sector or increasing and new markets will be in the non-organic and occasional consumer segments. These consumer groups might be looking for organic replacements of their conventional produce. In these cases, the degree of processing, including rather high levels of processing, might be less relevant than in the traditional organic segment.

A6 How to select processing technologies which are acceptable for organic consumers?

The very first step is to define the consumer segment which will be addressed, also called target group. Are traditional organic consumers addressed or are pragmatics or convenience seekers addressed? Are origin seekers addressed, or are freshness and taste seekers addressed who did not consider organic by now because they were happy with the offers of the conventional food sector?

Next, it should be clear what the advantages (and disadvantages) of the newly developed product (new technology) are from the *consumer point of view*. Is it health, is it taste, is environmental protection, is it shelf life or other forms of convenience?

Figure: Different forms of processing



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It is very important to reflect on the processing technology in question from the **consumers point of view**. Relevant questions to answer are:

- Am I able to explain the processing concept and technology to my customers?
- What kind of benefits for consumer are created by the used technology?
- Would they accept the used technology if they knew?

The last question is particularly relevant because of consumers low familiarity with processing technologies and their limited knowledge. To hide behind consumers' lack of knowledge when deciding for organic processing technologies is not in line with the philosophy of the organic sector of transparency, fairness, honesty and openness.

B Consumer communication

Having in mind what consumer know, what they want and which product (technology) is selected, the specific advantages need to be communicated.

B1 How to identify the target group?

Effective communication needs to reconsider the specific target group. The target consumer group depends on the product itself, on the processing company and on the distribution channel, among others. Generally spoken, there is a close interrelation between the product and the consumer. This is totally in line with modern marketing, according to which a product development depends to a large extent on consumers wants and needs.

Finding or defining the target group is not so easy, particularly when products differ largely or when consumer knowledge is low and when they use simplifying heuristics in decision making. The above-mentioned consumer segments might give a first idea of possible target groups.

To give two easy examples: **traditionalists** will more often go for pasteurized milk, while **pragmatics** might well prefer ESL and UHT milk, since it is more convenient. Similarly, traditionalist prefer directly pressed and fresh juice while pragmatics might prefer juice from concentrate or HPP treated juice.³

Figure: Juice and milk options

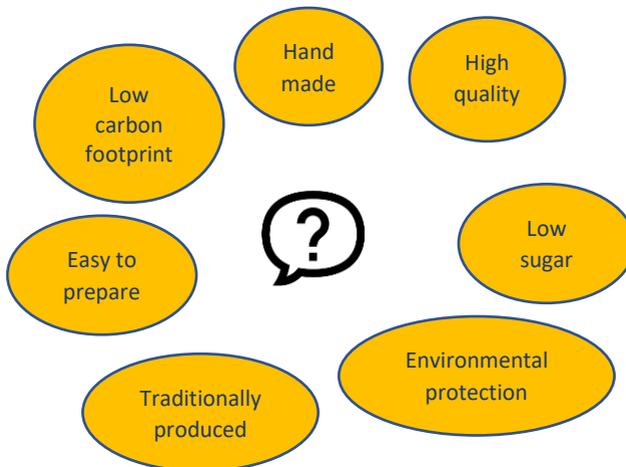


³ Hüppe, R. und Zander, K. (2021): Consumer perspectives on processing technologies for organic food. *Foods* 10, 1212. <https://doi.org/10.3390/foods10061212>.

B2 What to communicate with consumers?

In consumer communication, one should be careful not to overwhelm consumers with too much information. This holds particularly true for information they cannot understand and when it is about complex interdependencies – as it is the case with processing technologies.

Earlier, the relevance of cost-benefit considerations was mentioned. For each product, the processor needs to be clear about the specific benefit – from the consumer perspective. The perception of the specific benefit may vary between processor and consumer. In consumer communication, the benefit perceived by consumers must be the benchmark, and not the benefits derived from any technical product details. That means that mainly tangible consumer benefits should be communicated. Tangible consumer benefits may be taken from the list of what consumers want, see also the figure below. These benefits are product specific and may vary by target group.



B3 How to communicate with consumers?

First of all, consumer communication needs to be **transparent** and **honest**. Information on the product/package itself should be scarce. Symbols or logos can be used for conveying information, however, they need to be known by consumers. Therefore, simple and unambiguous wording might be more informative. Attention should be paid about consumers understanding of your messages. Consumers' understanding even of common expressions (e.g. fair, careful) might be very different from what you as a processor mean.

Additional information should be provided for consumers who want to know more. This can happen on the company's homepage or by using specific customer magazines, etc.



B4 How to increase transparency?

Information on product packages face clear boundaries. The amount of information that can be provided is limited: due to package size, due to consumers' information overload and maybe even due to a lack of consumer interest. So, more information about the product can even be counterproductive and decrease consumers information uptake. Providing additional information at the company's homepage as proposed above is helpful but also costly.

An answer to this dilemma can be to cooperate with other organic food processors and to provide additional information at a neutral media or platform, such as the internet. The internet offers the opportunity to give information in detail about traditional and modern processing technologies, their advantages and disadvantages. It should be easily understandable and - ideally - interactive.



Finally - Take away messages

- Consumers preferences for processed organic food are very divers and often contradictory
- Consumer knowledge about (organic) food processing is low
- Specific consumer target groups have to be identified
- Processors have to anticipate consumer preferences and communicate the benefits from the consumer perspective
- Transparent, honest and fair consumer communication is needed
- Common effort should be made to establish efficient consumer communication about processing technologies fitting to the organic concept.