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Searching for quality Hungarian products – the operation of the Hungarian Food Codex

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1. Summary

The Hungarian Food Codex is presented in this article, and the role it plays in market regulation and the evolution of consumer awareness, and in addition to a historic overview, the cardinal aspects of its operation are also discussed. Following this, through the results of our primary research, it is shown on what basis price-sensitive Hungarian consumers give their vote of confidence to Hungarian products. In this light, we consider how changes in quality requirements might affect in the future the attitudes revealed, since it is a fundamental task of the regulations in the Hungarian Food Codex that customers regard domestically produced foods as being of excellent quality.

2. Introduction

The Hungarian Food Codex is a collection of rules regarding foods and their test methods. It is based on the Austrian Food Codex and the international Codex Alimentarius, operated by the FAO/WHO. Its creation was ordered only by the Food Law of 1976, even though the concept of the ancestor of the Hungarian Food Codex was born already at the beginning of the 1900s. In its current, three-volume form, it provides support to food producers, authority staff and conscious consumers at the same time. In the first volume, mandatory requirements are listed, followed by guidelines and advanced level requirements, while in the third volume test methods are found. In recent times, two regulation amendments were completed, one for meat products and one for bakery products. In both cases, new elements and changes have to be taken into consideration, which are aimed at producing better quality foods. According to the survey of NÉBIH, conducted in 2015, the majority of Hungarian consumers pays attention to buying Hungarian foods, and this is also true for meat and bakery products. Among the reasons for the preference for Hungarian products, good quality is prominently mentioned. This attitude is strengthened further by the professional work related to the food codex and the easy-to-understand communication of the new elements of the regulation.

3. Chronicles of the creation of the Hungarian Food Codex

The Hungarian Food Codex – or the Codex Alimentarius Hungaricus in Latin – is a collection of rules regarding the composition, quality, labeling, safety requirements and test methods of certain foods and food groups. Switzerland and Austria also has similar food codexes, and their history goes back to the 1800s [8], while this form of regulation has been in existence in Germany and France since the middle of the 1900s [17]. Food codexes were born based on the then long-established pharmacopoeias, and the provisions being realized through them took the place of standards [17] [21].

The Hungarian Food Codex regulations were based on the Austrian Food Codex, established in 1891 during the times of Austro-Hungarian Empire, and on the Codex Alimentarius, created by the FAO/WHO and serving as the basis for international food standardization. Even though Hungarian experts have been participating in the work of the Codex Alimentarius since 1968 [17], and a “regulation proposal” to record the requirements of different foods was prepared by Mátyás Baló in 1904 already [13], the establishment of the Hungarian Food Codex was only prescribed by Law IV of 1976 about foods [1]. It was at this time that the Hungarian Food Codex Com-

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mittee was created, and the so-called Sector Expert Committees (the future commissions) were formed according to product groups.

In the 1980s, the Hungarian Food Codex was still based on product sheets, but it was soon found out that the structure of these were unsuitable for practical use [17]. In the 1990s, due to the radical change in the economic system, the role of the Hungarian Food Codex changed as well [9]: of the food laws of the EEC, provisions containing detailed technical descriptions and test methods were adopted [18]. The three-volume structure, still in force today, was formulated as part of the food law of 1995 [2].

After joining the European Union, the role of the Hungarian Food Codex in Hungarian regulation became even more pronounced, and this was confirmed by law LXXXII of 2003 [3], and by law XLVI of 2008 about the food chain and authority supervision, still in effect [4]. In its current form, the Hungarian Food Codex performs its role on many fronts – it provides guidance to producers, helps safe and good quality Hungarian products to reach store shelves and, in addition, ensures proper information of consumers, and supports the authority monitoring process, the supervision.

4. Structure and development

Volume I contains the specifications, while Volume II contains the guidelines developed by the Hungarian Food Codex Committee and the special committees. Volume III contains the Official Food Testing Method Collection.

The **HFC Regulations (Volume I)** – the application of which is mandatory – was announced as an annex to FVM decree 152/2009. (XI. 12.) [5]. There are two different types of specifications, some of them are the directly adopted EZ guidelines (directives) which must be incorporated into the Hungarian legal system, while the other part consists of national specifications and product regulations which are not yet covered by EU law. Specifications of the second type are usually coordinated by EU member states (notification), and so they are mandatory all foods marketed in Hungary, and they do not hinder the free movement of goods.

The first level of the Food Codex only determines the basic quality requirements which have to be applied to the ingredients and their proportions, as well as to the quality characteristics of the given food. There is such a specification currently for certain meat products, the modification of which came into effect on July 21, 2016, while the modification regarding bakery products and traditional confectionery products is under the notification procedure.

The scope of mandatory specifications is worth extending in the future, in order to be able to ensure the quality of the goods reaching Hungarian consum-

ers. However, it is important to note that excessive tightening of the regulations might result in unwanted effects. The price of regulated foods might rise considerably, and so consumption may shift towards cheaper products, outside the scope of Food Codex regulation (but which are still legally marketed).

Volume II of the **HFC** contains **Guidelines**, the application of which is not mandatory. However, if a food is marketed in Hungary, using the given name or distinctive marking of a product regulated by the guidelines, then application of the provisions of the guideline is mandatory. VM decree 74/2012. (VII. 25.) about voluntary distinctive markings [6], often referred to as the “Hungarian product regulation”, is in line with this.

This volume includes the advanced level of the specifications, with which the Hungarian Food Codex has been expending continuously since 2009. With the *introduction of the advanced level*, the goal is to define the character and quality of higher added value and traditional Hungarian products, and their differentiation from mass products and, ultimately, the promotion of these products. So here we are talking about such voluntary characteristics/parameters that both domestic producers and potential importers have to fulfill if they would like to market a product with the designation “premium”, “special quality” or something consistent with these, where an advanced level regulation already exists (for example, premium plum jam). This helps the work of the authority greatly, because this way “pseudo-premium” products, intended to mislead consumers, can be easily eliminated. Advanced level guidelines were first developed for honey. This product category was followed by the groups of syrups and jams, confectionery and bakery products, dairy products, beers, fruit wines and ground paprikas.

Among other things, these guidelines support food producers who manufacture more sophisticated, high quality products with higher added value. An integral part of the guidelines is the Good Manufacturing Practice, in which a major role is played by the quality of raw materials and the technologies used, as well as the process of self-monitoring.

Not all products of all manufacturers necessarily satisfy advanced level requirements. However, the objective is not this, but the recognition of added value, promotion of the dedication of producers and retailers to quality, and strengthening of consumer quality awareness and loyalty to Hungarian products.

Starting from 2013, detailed regulation regarding foods *with the distinctive marking “artisan”* is also included in Volume II. The objective of the guideline is to define those physical, chemical and organoleptic characteristics and manufacturing technologies which can be used to differentiate clearly between products prepared using artisan technology from

those manufactured using industrial methods on an industrial scale. This is why guideline no. 2-109 of the Hungarian Food Codex about the general characteristics of artisan foods was born.

The possibility to mark artisan production was already included in the so-called “Hungarian product regulation”, however, it had to be realized that the artisan nature differs from sector to sector to such an extent that a separate and detailed regulation for this area became necessary. So far, sector-wide regulation has been prepared for nine product groups, but the extension is under way. As with the other guidelines of the Hungarian Food Codex, the current regulation has an indirect effect: it does not mean that only products meeting the parameters determined by the guideline can be manufactured in the future.

Volume III of the Hungarian Food Codex contains the Official Food Testing Method Collection, based on which food codex product characteristics can be tested professionally, in a standardized way [15]. In addition, adopted EU and mandatory national testing methods that appeared in the annex to FVM decree 152/2009. (XI. 25.) can be found here as well (for example, the test method for trans fats)[5].

5. Recently adopted amendments and modifications under notification

As was mentioned earlier in the article, two amendments to the specifications regarding meat products and bakery products have been published. In both cases, the goal of the modification was to ensure that the food reaching the consumers’ tables is of high quality and to provide adequate information on the nutritional values connected to the high quality by the designation of the products.

In specification amendment **no. 1-3/13-1 of the Hungarian Food Codex** regarding meat products, changes were made to the meat and salt contents of certain products, to the conditions of use of mechanically separated meat (MSM), to a few definitions and labeling requirements, and new products were also included in the scope of the regulation. All of the changes can be considered a tightening of the requirements, clearly serving the interest of the consumers. The amended regulation came into effect on July 21, 2016.

As a result of the amendment, hopefully, poor quality meat products will disappear from store shelves. From now on, if someone buys 60 percent meat content frankfurters, they can be sure that it really contains this much meat, and mechanically separated meat. Better quality is clearly guaranteed by the new regulation.

In addition to setting the rules of what can be called meat on the label of a product, this measure also increases the required minimum meat content of the

different products. In the case of cold cuts, the number is 50%, for frankfurters and bologna sausage it is 51%, for saveloy it is 55% (instead of the earlier value of 40%), while they can contain no more than 10 percent mechanically separated meat. The minimum liver content of liver pate increased from 12 to 25 percent. In addition, the maximum allowed salt content of the products gradually decreases, for example, in the case of cured, raw ham to 5 percent, while for cooked hams to 3.5 percent. The fat and water content also decreases and, for several product groups, the required minimum protein content was raised.

A further significant change is that, when labeling meat products or prepared meats, the animal species (particularly pig, cow, calf, chicken, turkey, duck, goose) making up at least 70 percent of the product has to be indicated. If none of the animal species is responsible for at least 70 percent of the meat content of the product, all of the species contributing to the meat content of the product have to be indicated on the label, in descending order of quantity. In the case of products made from native animals, game or farmed game, the name of the given breed or species can only appear in the name if at least 80 percent of the meat content of the product comes from the given breed or species.

The designation of smoking was also clarified by the Food Codex. In accordance with EU recommendations, there are 3 categories: „smoked”, „smoked with liquid smoke/smoke solution”; and „smoke flavored”.

Meat product and prepared meat designations determined in the specifications of the Hungarian Food Codex, as well as all other parameters, apply to all products marketed in Hungary – including imported products.

Specification amendment **no. 1-3/16-1 of the Hungarian Food Codex** about certain breads and pastries was also a quality-oriented transformation. With increasing consumer awareness, there is an ever increasing consumer demand for high quality food, therefore, many new types of bread are included in the regulation of the Food Codex (Graham bread, whole wheat bread, spelt bread, corn bread, wheat bread, bread with rye, rye bread). In addition, ingredients now include pseudo-grains (buckwheat, amaranth), raw materials that make up a more and more important part of the diet of health-conscious consumers because of their high vitamin, protein and dietary fiber contents [20] [7].

Great care was taken by the Hungarian Food Codex Committee to ensure that the products covered by the regulation are not only healthy, but as tasty as possible and popular among consumers, because these are key determinants of consumer decisions and attitudes [12], and, thus, of gaining market share. Therefore, finalization of the draft regulation was preceded by trial baking of the products with

various compositions, and the composition to be included in the draft regulation was recorded after organoleptic tests. In addition to the composition of the new products, organoleptic properties, appearance and chemical parameters are also included in the regulation. Moreover, instead of using the guideline form, requirements are recorded in decrees as binding specifications in a uniform structure.

For all product groups that appear in the regulation, the ingredients that can be used, quality requirements, packaging and the designation were determined in detail. Mandatory flour mix ratios were clarified and, for several products, quality parameter values were increased (e.g., the amount of rye flour in rye bread should be at least 60% in the future). Bread and pastries are some of the most widely consumed foodstuffs, therefore, they are suitable for decreasing the salt intake of the population by changing their salt content even by small amounts [16]. Accordingly, the maximum salt content of breads is reduced by the regulation: starting from January 1, 2018, it can be no more than 2.35% (m/m) instead of the current value of 2.5% (m/m). Another feature is a number of protected designation products, such as Boer scone or kaiser roll, as well as the inclusion of poppy seed and walnut roll under the protection of the regulation as key products. The designations listed in the regulation can only be used if the product meets the requirements included therein (ingredients, quality requirements, packaging). However, the fact is that there are market participants who, instead of food codex designations, use invented names and additional descriptive designation for their products. Some of them decide to do so, because they do not want to, or they cannot meet the Hungarian Food Codex quality requirements, while others appear on the market with novel products, for which there are no specifications. In these cases, one can't and shouldn't prohibit the marketing of the product and, especially, the innovation of manufacturers, and so the use of designations different from those in the regulation.

However, labeling practices that mislead consumers are prohibited (for example, marketing of a pseudo-dairy product, prepared with vegetable fat, with a text or graphical elements implying that it is a dairy product).

6. Hungarian consumer opinion

The Hungarian Food Codex plays equally important roles both in direct market regulation and indirect market regulation. This is expected to be appreciated even more in the near future, because the main role in a market economy is played by the final consumer. The conscious consumer votes with his money, and the key factors in his decision are his experience, knowledge and preferences. In this respect, food market processes are greatly influenced by the clear definition and proper communication of the quality requirements [11].

In a survey conducted by the National Food Chain Safety Office in the fall of 2015, which included a large number of participants (n=1003) and which was representative in terms of age, gender and place of residence, the opinion of the Hungarian population on domestic foods was investigated, among other things. Methodologically speaking, the study was a questionnaire survey based on personal interviews, and the data were analyzed using the SPSS statistical software package.

Based on our results, 82.12% of respondents pay attention to buying Hungarian foods. Of these, 56.32% examines the place of origin during each purchase before making a decision, while 25.80% does so only in the case of certain products. Only 17.88% of the adult population is not interested in the place of origin when making a purchase. In the following, the opinions of those respondents are presented, who pay attention to buying domestic products all the time or in the case of certain products.

Figure 1 shows how important respondents consider a Hungarian place of origin for the different product categories. Putting Hungarian foods in the basket is most important in the case of meat, eggs and processed meat products. However, cereal based products are located in the second half of the list, with a value of 3.99.

Furthermore, it was investigated, for the product types affected by the changes in the food codex, what the most important causes were that made Hungarian consumers stick to domestic origin (**Figure 2**).

From a demographic point of view, food products of Hungarian origin are appreciated more than average by women, people over 40, and those with a college degree. It is interesting that, in the case of processed meat products, it is also important to students to buy Hungarian products, but the same cannot be said about cereal based products.

According to the literature, development of a quality-oriented consumer attitude is strongly promoted by clear definition of product quality, its effective consumer communication, and making information available [10] [12] [14] [19]. In all this, a key role is played by the Hungarian Food Codex. The range of products, organically related to Hungarian tradition and meeting higher quality expectations can be differentiated successfully with the help of continuous, prudent regulatory actions and with the expansion of advanced level product specifications.

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