

**STANDARDIZATION OF THE BAKERY GOODS**

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**Abstract.** The article presents selected aspects of the standardization, highly valued factor that stimulates the economic development of the country. The attention was paid to the purpose of the standardization, basic normative documents and standardizing activity. Different proposals for the classification of bread applied in practice or appearing in scientific studies were presented. It was emphasised that currently legal mess exists in Poland, in terms of use of the bread classification. The necessity of legal regulations of this issue by standard regulations was pointed out.

**Key words:** standardization, norm, bakery enterprises, classification, bread

**INTRODUCTION**

Bakery enterprises by drawing up and implementing the procedure of the internal control and conducting processes of the modernization ensure the appropriate quality for their products. Still however a special attention should be paid to the need of spreading information and educational activities among the companies concerning regulations and principles applied on the uniform EU market. It is a result of the fact that applicable regulations in the EU, as well as national regulations not always are known or correctly interpreted, what influences the low quality of products and at the same time the ability to compete on the common market for many entrepreneurs. And after all, there are still not fully exploited abilities and production potential in Polish bakery plants.

Diversity in interpretation of legal regulations and lack of explicit rules may threaten consumers' health. That might be also the source of threats to functioning of enterprises which operate on the domestic or international market. That may cause disrupted or ineffective, communication between partners. Therefore principles and conditioning applied to the food law are significant. It is impossible to consider the issue uncritically

because the specificity of feeding is diversified within individual because of economic conditions, regional customs or cultural patterns and climatic conditions. It is important that great efforts should be made in order to standardize and harmonize legal articles among individual countries.

## OUTLINE OF THE HISTORY

Legal norms were originated from historical notes which can be found in the *Code of Hammurabi*, the *Bible* or the *Koran*. In the *Bible* one may find notes about distinguishing unleavened bread from the ordinary, done on leavening. In the *Code of Hammurabi* from XVIII century BC it is possible to find notes about the bread and brewer's yeast. The Islam in the *Koran* also included a lot of rules regarding eating food and bread is mentioned in many places. The Muhammed prophet said that: „there are three blest things: the early breakfast, bread and soup”<sup>1</sup>. According to the Islam, bread is saint, even more saint than the *Koran*<sup>2</sup>.

As another example of formed regulations acts and guild regulations which were a legal basis of activities of the guild may be pointed out<sup>3</sup>. These documents were passed and written down in the guild, and then approved by the city council, the owner of the city or the king. In these documents the most important rights and duties of craftsmen were determined.

Basics of the standardization of the food in Poland appeared in XVI century during the reign of king Kazimierz Wielki who issued an edict regarding salt units [Rutkowski 2000]. According to Berger [2002], norms concerning feeding and food appeared for the first time in thirties of the 20th century in England, the USA, the USSR and Canada, and then also in Poland.

## THE PURPOSE OF THE STANDARDIZATION

The standardization is regarded as the factor that highly stimulates the economic development of the country. Contemporarily pursued politics shows it on the international level. The primary goals of the standardization of foodstuff are the protection of health and life of the man. A hygienic state and sustenance of food are fundamental aspects of

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<sup>1</sup> [www.muslimfasten.de/ernaehrung\\_nach\\_koran\\_und\\_sunn.1167.0.html](http://www.muslimfasten.de/ernaehrung_nach_koran_und_sunn.1167.0.html).

<sup>2</sup> Dropping of bread is determined almost as the sin, and raised bread should be three times kissed and put each time to the head. In the Arabic and Turkish kitchen bread is served to every dish. It is eaten in different ways, also warm, filled with vegetables, or with meat. It is also possible to become satiated with a dry bread. A Turkish proverb associated with bread says “*oğlan olsun deli olsun, ekmeğ olsun kuru olsun*” what means „a Base is a boy, even if he would be stupid; a base is bread, even if it would be dry”. ([www.muslimfasten.de/ernaehrung\\_nach\\_koran\\_und\\_sunn.1167.0.html](http://www.muslimfasten.de/ernaehrung_nach_koran_und_sunn.1167.0.html)).

<sup>3</sup> Guilds were associations concentrating compulsory of craftsmen of one or a few specialities. Their role was organisation of the production, teaching the profession, fighting against the competition between non-union craftsmen. They also performed court, religious and protective functions.

their quality [Kompendium wiedzy... 2004, Gerting and Duda 2004, Zarządzanie jakością... 2003].

Standardization, according to the norm PN-EN 45020:2000 means “activity, which purpose is to obtain the optimal level of organization in given conditions and within defined scope”<sup>4</sup>. This goal is achieved by establishing decisions applied universally and repeatedly, concerning existing or possible problems.

## UNIFORM SYSTEM OF THE STANDARDISATION

Along with the growth of the international trade exchange and the technical cooperation, normalizing units worked out determined procedures and the type of the cooperation which constitute appropriate manners, applicable to standardizing works on all levels [Code of good practice... 1996, Gach 2001]. However, the bases for action are norms drawn up on the European and international level.

Norms adopted on other principles, e.g. trade norms or company norms can have geographical scope of few countries. Company norms are approved by the authority of the organisational unit and they have character of the technical rule that describes compulsory to fulfill technical specifications in particular unit.

International norms are universally implemented on the regional/domestic level and applied by producers, trade organisations, buyers, consumers, laboratories, authorities and other sides. These norms play an important role in the process of removing technical barriers in the trade [Adoption of International... 1999].

Advantages of the standardization can be fully achieved by developing the global approach. However, not in all cases the full implementation of norms turns out to be possible, because of different regional or domestic approaches to matters related e.g. with safety, with health care and safety of people, with protection of the environment or with climate and geographical problems. In the WTO/TBT Agreement (World Trade Organization/Technical Barriers of Trade) it was acknowledged that these reasons are a reasonable basis of regional and domestic deviations. However, in such a case it is recommended to make all efforts in order to minimize deviations to the sensible minimum [Adoption of International... 1999].

In practice many types of norms are distinguished, but they are not classified in a systematical way. Universal types of norms are used, which do not exclude each other. The most common types of norms defined in the norm PN-EN 45020:2000 are: fundamental, technical norms, examination of the good, the product, the process, the service, the interface and data (to be delivered).

On account of the necessity of the cooperation of all kinds of organisational units worldwide in various areas the need of a harmonisation of norms appeared. Harmonised standards which are identical, as for contents, but not, as for the presentation, are described as standardised norms. However, harmonised standards which are identical both as for contents, as well as the presentation are described as identical norms, although identifying data can be different.

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<sup>4</sup> PN-EN 45020:2000 Normalizacja i dziedziny związane. Terminologia ogólna.

Standardising activity in Poland and legal bases of the domestic system are changing gradually from 1993 and are adapted to international methods of acting. The European Union appoints the politics and goals in this matter.

After an amendment to a bill about the standardisation [Act... 2002]<sup>5</sup> Polish norms became optional documents, which application depends, as in other countries, on the will of the parties concluding economic contracts. This change of character of norms gained the key importance for adapting the Polish standardisation to the standardisation of states of market economies.

The union legislation regarding food is not an explicit and closed legal document, but similarity as the EU it was and still it is undergoing transformations arising out of concluded agreements. In Poland institutional, organisational, as well as mental transformations take place all the time. Polish food legislation at the present stage is closely harmonised with directives of the European Union. However, it does not mean that works in that field are finished. It seems that a normalising European politics is a key to changes. Principles of conducting normalizing activities exist both on the international, as well as European level, so the same should be transferred to the national level.

## CLASSIFICATION OF THE BREAD IN POLAND

In the set of standards *Codex Alimentarius* guidelines regarding classification of the bread have not been found<sup>6</sup>.

The fact that onomastics and classification of the bread took place in historical processes of the development of the bakery in individual countries makes it impossible to conduct standardisation at the international level currently. Not only technological differences, but also cultural differences are standing on the way. Bakery products with the same nutritional advantages in various countries can be classified to different groups of the bread.

In the set of ISO norms one may find a description of varieties of cereal crops and requirements for flours. In the set of Polish norms PN-ISO 5527:1999 there is a list of terms and definitions concerning cereal crops including products and testing methods<sup>7</sup>.

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<sup>5</sup> In accordance with the Act applying Polish Norms became voluntary, unless some of them were appointed for compulsory use by the Polish law.

<sup>6</sup> *Codex Alimentarius* describes standards form crops and flours and the safety rules or acceptable levels of ingredients. One may find there: Code of practice for the prevention and reduction of mycotoxin contamination in cereals, including annexes on ochratoxin a, zearalenone, fumonisins and tricothecenes (CAC/RCP 51-2003), Codex Maximum level for cadmium in cereals, pulses and legumes (CAC/g139-2001), Codex standard for processes cereal-based foods for infants and children (Codex stan 74-1981), Codex standard for wheat flour (Codex stan 152-1985, rev. 1-1995), Codex standard for sorghum flour (Codex stan 173-1989), Codex standard for durum wheat semolina and durum wheat flour (Codex stan 178-1991), Codex standard for durum wheat and durum wheat (Codex stan 199-1995).

<sup>7</sup> This norm is a reprint of the English version of the base of the international norm ISO 5527:1995 supplemented with translation into Polish and is issued as identical with the implemented international norm.

Other norms applicable during examination of the cereal seed and cereal preserves allocated to consumption are: PN-ISO 2171:1994, PN-ISO 3093:1996 and PN-ISO 3093:1996/Az1.

The Confederation of Farm and Food Industry of the European Union (Confédération des Industries Agromalimentaires de l'Union Européenne – CIAA-UE) made a classification of bakery and confectionery products, taking two groups of products into consideration:

- bread and normal bakery products,
- delicacies bakery products.

Described above classification was prepared mainly for custom purposes and officially accepted in France in 1996. The first category – bread and normal bakery products – contains the bakery goods produced on the basis of different types of the flour, under the condition, that the content of sugar or of fat (expressed in a dry substance) does not exceed 5% of each. The second category – delicacies bakery products – contains all other products not mentioned in the first category. These products can be raised with yeast, bakery powders or in the physics way.

The European Committee and the European Parliament in the directive No. 95/2 EC from 30 January 1995 “applies diverse terms of the bakery goods and confectionery, not referring clearly to CIAA arrangements” [Piesiewicz 2006].

Polish legal terminology in the field of food and feeding is based on the Act from 11.05.2001 about health conditions of the food and feeding, and its amendment from 28.07.2005 [Ustawa... 2005]. They are in accordance with terms accepted in legal documents of EU. More important terms within the scope of the bakery goods are [Rutkowski et al. 2006]:

- (wheat) bread – “bread produced exclusively from the following elements: wheat flour, water, yeast or leavening, food salt” (appropriately to directive of the EU 95/2),
- bakery goods – “the bakery goods should contain minimum 5% of the sugar or/and minimum 5% of fat” (definition of CIAA-UE).

In Poland another classification of the bread is well known. This division may be found in Polish Norms (PN) prepared by the Polish Committee for Standardisation and the Polish Classification of Products and Services (PKWiU), as well as in the Central Statistical Office (GUS).

The bread can be divided among others according to: the kind of the applied flour, the type of the flour, unit mass, the way of making the dough and the permanence of the bread. All mentioned proposals of criteria of classification of the bread can point to the fact that the division of the bread is relatively difficult. A division universally accepted in practice is the classification of the bread according to kinds of the applied flour and the way of making the dough. Classification of the bread according to Polish Norms distinguishes the following kinds of the bread: rye, wheat and mixed.

The literature on the subject is delivering even more classifications of the bread and various proposals of criteria of those divisions. Below different proposals for the classification of the bread applied in practice or appearing in scientific studies were presented and a short characteristics of the rye, wheat and mixed bread (Table 1, 2).

Table 1. Classification of the rye and wheat bread according to units or authors of the classifications

Tabela 1. Podział pieczywa żytniego i pszennego według jednostek lub autorów dokonujących klasyfikacji

Kind of bread Rodzaj pieczywa	Definition of the Polish Committee for Standardization Definicja według Polskiego Komitetu Normalizacji	Unit or classifying authors Jednostka lub autorzy klasyfikujący
Rye bread Żytnie	<p>Fundamentally it is produced only from the rye white or brown flour with the use of the multi-phase acid fermentation. If it contains the supplement of the wheat flour in amount 10-15%, it is still classified as the rye bread. During the production some additions are used, like salt, the potato syrup, malt extract, the artificial honey, margarine, bakery fat, potato flakes or the grits potato, as well as different kinds of raw materials which raise the nutritional value of the bread.</p> <p>Zasadniczo jest wytwarzane tylko z mąki żytniej jasnej lub ciemnej z zastosowaniem wielofazowej fermentacji kwasowej. Jeżeli zawiera ono dodatek mąki pszennej w ilości 10-15%, zalicza się jeszcze wówczas do grupy pieczywa czysto żytniego. Podczas wyrobu można dodawać sól, syrop ziemniaczany, ekstrakt słodowy, miód sztuczny, margarynę, tłuszcz piekarski, płatki ziemniaczane lub grys ziemniaczany, a także różnego rodzaju surowce podnoszące wartość odżywczą pieczywa.</p>	<p>Polish Committee for Standardisation Polski Komitet Normalizacji</p> <p>Polish Classification of Goods and Services Polska Klasyfikacja Wyrobów i Usług</p> <p>Central Statistical Office Główny Urząd Statystyczny</p> <p>Reński [1998]</p>
Wheat bread Pszenne	<p>ordinary zwykłe</p> <p>The wheat ordinary and select bread is produced from the wheat flour on yeast, with the addition of salt, sugar and fat, milk, lecithin, low-calorie wheat flour, malt extract, wheat embryos, poppy seeds, caraway and other, or without additions, with using the lactic acid if necessary or bakery improvers.</p> <p>select wyborowe</p> <p>Pieczywo pszenne, zwykłe i wyborowe, jest produkowane z mąki pszennej na drożdżach, z dodatkiem: soli, cukru i tłuszczu, mleka, lecytyny, mąki pszennej niskokalorycznej, ekstraktu słodowego, zarodków pszennych, maku, kminku i innych lub bez dodatków, z zastosowaniem, w razie potrzeby, kwasu mlekowego lub polepszaczy.</p> <p>semi-confectionery półcukiernicze</p> <p>The half-confectionery bread is produced from the wheat flour on yeast with the addition of sugar, fat, milk, eggs, salt and other raw materials required by the recipe, without the filling or stuffed, with the possible application of bakery improvers.</p> <p>Pieczywo półcukiernicze jest produkowane z mąki pszennej na drożdżach z dodatkiem cukru, tłuszczu, mleka, jaj, soli i innych surowców określonych recepturą, bez nadzienia lub z nadzieniem, z ewentualnym zastosowaniem polepszaczy.</p>	<p>Polish Committee for Standardisation Polski Komitet Normalizacji</p> <p>Polish Classification of Goods and Services Polska Klasyfikacja Wyrobów i Usług</p> <p>Central Statistical Office Główny Urząd Statystyczny</p> <p>Reński [1998]</p> <p>Gąsiorowski [2004]</p>

Source: own study.

Źródło: opracowanie własne.

Table 2. Classification of the mixed, special and dietetic and other bread according to units or authors of the classifications

Tabela 2. Podział pieczywa mieszanego, specjalnego i dietetycznego oraz pozostałego pieczywa według jednostek lub autorów dokonujących klasyfikacji

Kind of bread Rodzaj pieczywa	Definition of the Polish Committee for Standardization Definicja według Polskiego Komitetu Normalizacji	Unit or classifying authors Jednostka lub autorzy klasyfikujący
Mixed bread Mieszane	<p>Produced from the rye flour in the amount of 10-90 and wheat flour on acid, on acid with the addition of yeast or on yeast, with the addition of salt, milk, malt extract, wheat embryos, fat, seeds of: flax, sunflower, soya, poppy, caraway, potato and oat flakes and other raw materials required by the recipe and bakery improvers or without the additions.</p> <p>Produkowane z mąki żytniej w ilości 10-90 i mąki pszennej na kwasie, na kwasie z dodatkiem drożdży lub drożdżach, z dodatkiem soli, mleka, ekstraktu słodowego, zarodków pszennych, tłuszczu, nasion: lnu, słonecznika, soi, czarnuszki, maku, kminku, płatków ziemniaczanych i owsianych i innych surowców, określonych recepturą oraz polepszaczy lub bez dodatku.</p>	<p>Polish Committee for Standardization Polski Komitet Normalizacji</p> <p>Polish Classification of Goods and Services Polska Klasyfikacja Wyrobów i Usług</p> <p>Central Statistical Office Główny Urząd Statystyczny</p> <p>Reński [1998]</p>
Special and dietetic Specjalne i dietetyczne	<p>e.g. low-sodium bread for people with arterial hypertension,</p> <p>Low-sodium bread – it is a bread with the content of sodium not larger than 120mg in 100g of the product, produced from the wheat and/or rye flour on acid, on acid with the addition of yeast or on yeast with the potential addition of other substances required by the recipe.</p> <p>Other examples of special bread:</p> <ul style="list-style-type: none"> <li>- gluten-free bread from the buckwheat or rice flour</li> <li>- anti-allergic bread, that means rye bread not containing the wheat flour, yeast and the milk</li> </ul> <p>np. pieczywo niskosodowe dla osób nadciśnieniem tętniczym,</p> <p>Pieczywo niskosodowe – to pieczywo o zawartości sodu nie większej niż 120 mg w 100 g wyrobu, produkowane z mąki pszennej i/lub żytniej na kwasie, na kwasie z dodatkiem drożdży lub na drożdżach z ewentualnym dodatkiem innych substancji określonych recepturą.</p> <p>Inne przykłady to:</p> <ul style="list-style-type: none"> <li>- pieczywo bezglutenowe z mąki gryczanej lub ryżowej,</li> <li>- pieczywo antyalergiczne, czyli pieczywo żytnie, nie zawierające w swym składzie mąki pszennej, drożdży i mleka.</li> </ul>	<p>Polish Committee for Standardization Polski Komitet Normalizacji</p> <p>Ambroziak [1988]</p>
Other bread Inne	<p>e.g. toast bread, rice and corn crisp bread, peculiar bread (e.g.: ciabatta, pita, maca etc.).</p> <p>np. pieczywo tostowe, pieczywo chrupkie, ryżowe i kukurydziane, pieczywo specyficzne (np.: ciabata, pita, maca itp.).</p>	<p>Ambroziak [1988]</p>

Source: own study.

Źródło: opracowanie własne.

The bread is divided depending on the kind of the applied flour into a rye, wheat and mixed bread. Apart from those three basic kinds of the bread two additional groups are more and more often distinguished: special bread, also called dietetic and others.

The norm PN-92/A-74101 presents fundamental guidelines for the manufacture of rye bread. A peculiar aroma, an acid taste and slower becoming are distinctive features of the rye bread (comparing with other kinds of the bread) [Piekarstwo... 1988, Reński 1998, Towaroznawstwo... 2003].

The wheat bread, according to PN, is divided into a wheat ordinary and select bread (PN-92/A-74105) and semi-confectionery bread (PN-93/A-74106). The wheat ordinary and select bread is standing out with gentle taste. It is not suitable for a longer storage, because of the quick becoming [Piekarstwo... 1988, Reński 1998, Towaroznawstwo... 2003]. The norm PN-92/A-74105 depending on the applied raw materials in this group of bread distinguishes:

- wheat ordinary bread – manufactured from the wheat flour with the possible addition of sugar and fat only up to 3% in the flour; among this kind of bread there are: wheat Poznań rolls, Paris rolls, graham bread rolls, ordinary wheat bread,
- wheat select bread – manufactured from the wheat flour with the possible addition of sugar and fat in amount 3-15% in the flour; among this kind of bread there are bread rolls “kajzerki”, croissants, Wrocław rolls, bagels,
- wheat semi-confectionery bread contains above 15% of sugar and fat and other additions, while added raw materials other than the flour constitute less 40% of all raw materials; semi-confectionery products are: buttery croissants and rolls, plaits, Turkish loaves.

The content of sugar, fat and acidity is diversifying the wheat bread. Not always however these three characters are diversifying the wheat bread among pairs. For example the ordinary bread is characterised by a little bit higher acidity and the lower fat content than the select bread. Next the sugar content in both cases is similar. The semi-confectionery bread is characterised by the similar acidity as the ordinary bread, and the sugar content is higher (comparing to sugar content in the ordinary and select bread). The fat content in the semi-confectionery bread is similar to the one in the select bread and a little bit higher than in the case of the ordinary bread.

The norm PN-93/A-74103 presents fundamental guidelines for the production of mixed bread. This norm allows the application of bakery improvers.

Mixed bread is a bread of a slightly bigger volume, than pure rye bread. Usually it is white bread, with bigger pores, quite gentle taste, shorter permanence, becoming more quickly. Extended time of the storage causes that the pith crumbles [Piekarstwo... 1988, Reński 1998, Towaroznawstwo... 2003].

“The mixed bread is divided to wheat-rye with the majority of the wheat flour or, at least with equivalent amount of the wheat flour to rye flour and rye-wheat bread with the majority of the rye flour. (...) The smallest amount of the rye flour in the wheat-rye bread is 15%.” [Towaroznawstwo... 2003, p. 368].

For every kind of bread norms clearly determine general requirements and as far as used raw materials are concerned, organoleptic and physicochemical features, mass of the bread and acceptable deviation of the mass. Moreover, they determine features that disqualify the bread, and the way, how the bread should be packed, stored and transported.

Polish norms also clearly determine testing methods of bakery products (PN-A-74100:1992, PN-A-74108:1996), the way of the sampling and methods of conducting microbiological tests (PN-A-74102:1999), the way of sampling and the quality control (PN-86/A-74104). Polish Norms, apart from the division of the bread into three fundamental kinds, describe also a bread of the special purpose, differing from the ordinary bread in recipe composition, with manner of the baking and the production. To this kind of the bread belongs for example: bread with an increased protein content (PN-A-74122:1996) and low-sodium bread (PN-A-74124:1996). The bread from this subgroup is suitable for applying in the prevention of illnesses and may be characterised by the prolonged freshness [Gąsiorowski 2004].

Depending on the used types of the rye and wheat flour, the bread is divided into four groups of the bread with a different content of total ash, i.e.: group I: < 0.7% – white bread, group II: > 0.7% do 0.9% – wholegrain bread group III: > 0.9% do 1.4% – cribriform bread, group IV: > 1.5% – wholemeal bread. A content of ash is a diversifying factor. 1% of the content of ash in the flour corresponds to the value of one thousand in determining the type of the flour. The entire grain contains 2% of ash. So this way the wholemeal flour, to which all mineral substances of the grain passed is flour of type 2000.

The amount of the ash in flour “reflects the content of mineral elements in it, so refers to the nutritional value of the bakery goods” [Kot 2007, p. 32]. PN determine acceptable level of contents of total ash (%) for individual types of flour, at the level: of the wheat flour and the rye flour. According to the content of total ash also flours are divided into brown and white [Piekarstwo... 1988, Gąsiorowski and Urbanowicz 1993]. Bread manufactured from the flour of 1% content of ash is regarded as the white bread. Bread prepared from the flour with ash content exceeding 1% or mixtures of the flour, of which average content of ash exceeds 1% in the ready flour is regarded as the brown bread. Depending on individual mass the bread is divided into the following groups: small bread (the mass is below 200 g) and other bread (above 200 g). Depending on the way of preparation of the dough, there can be distinguished: rye bread (prepared with the multi-phase method and the short method), wheat bread (prepared with mono-phase method or two-phase method), mixed bread (here: wheat dough prepared with one or two-phase method and the acid prepared with multi-phase or short method).

Depending on the permanence of the bread Polish Norms specify the bread for the direct consumption, bread with the prolonged permanence and the long-lasting bread (PN-A-74109:1996, PN-V-74000:1997, PN-A-74112:1997). These norms refer to a rye bread, wheat and mixed and differ with applied methods of preserving the bread. This classification is used among others by Reński [1998] and Świdorski [Towaroznawstwo... 2003]. According to PN-A-740109:1996, the bread with the prolonged permanence can constitute “bread in one piece or sliced with the permanence above 10 days”. Extension of the permanence of such bread is gained by use of the appropriate packaging and preserving according to PN-A-740109:1996. Moreover, the norm PN-V-74000:1997 distinguishes the special bread with the prolonged permanence, which is defined as “bread in the shape of the form, in plastic packaging protecting against steam and gasses, with permanence from 1 month up to 6 months depending on the method of preserving, with parameters in accordance with requirements of the special consumer”.

Long-lasting bread (e.g. long-lasting rye bread, mixed, wheat) is described as “bread in one piece, portioned, sliced or in form of flakes, which keep the consumer usefulness for the period of time above 5 months” (PN-A-74112:1997).

The increase of the permanence is achieved by application of additions, relevant recipes, and also the packaging increasing the permanence of the bread. Bigger and bigger part of the production of bread is packaged. This bread is not called the bread with the prolonged permanence, but it is described as the pre-packed bread.

## SUMMARY

In Poland there is no duty of applying Polish Norms by bakery enterprises, although they constitute an essential element of the management of safety and the quality of food. PN can however be used in planning and harmonizing the production of bread. Currently producers of the bread rely on generally binding recipes, which are compulsory for them or on company norms created by them. Polish Norms are and they can be a kind of a model for drawing company norms [Kot 2007].

It may be stated that currently, in terms of use of classifications worked out by the PKN, a legal mess exists. If a producer does not use this ranking, he is threatened with a fine, even though according to the regulation of an act about the standardization, classification is not compulsory. A fine or sanctions of other kinds put on the enterprise are based on legislative acts (regulations of the Polish and European law) regarding such issues as e.g. labelling or applying of HACCP.

This situation proves that it is necessary to regulate certain issues by standard regulations and it lets one think that the obligation of applying PKN classification can be restored. Organising the law in the discussed scope would facilitate functioning of enterprises, creating convenient conditions for the development and competition on the common market.

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## NORMALIZACJA WYROBÓW PIEKARSKICH

**Streszczenie.** Normalizacja to bardzo ceniony czynnik stymulujący rozwój ekonomiczny danego kraju. W niniejszym artykule zwrócono uwagę na cel normalizacji, podstawowe dokumenty normatywne oraz działalność normalizacyjną. Zaprezentowane różne klasyfikacje pieczywa, stosowane w praktyce lub też występujące w opracowaniach o charakterze naukowym, potwierdzają, iż w Polsce, w zakresie stosowania klasyfikacji pieczywa istnieje obecnie nieporządek prawny. Dlatego też jest niezbędne uregulowanie zagadnień związanych z klasyfikacją pieczywa przez przepisy normatywne. Uporządkowanie prawa

w tym zakresie ułatwiłoby funkcjonowanie przedsiębiorstwom piekarskim, tworząc w ten sposób dogodniejsze warunki do rozwoju i konkurencyjności na wspólnym rynku.

**Słowa kluczowe:** normalizacja, norma, przedsiębiorstwa piekarskie, klasyfikacja, pieczywo

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