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ALLERGENS AND THEIR LABELING: A STUDY IN HOTELS IN STRUGA

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Abstract

Food allergies represent an increasingly common health issue worldwide, with potentially serious consequences for affected individuals. To protect consumers, especially those with allergies or intolerances, clear and precise labeling of allergens in food is essential. This study aims to analyze the regulations on allergen labeling in food, as well as their practical implementation in the hotel sector in Struga, the Republic of North Macedonia. The research includes an analysis of five menus from different hotels in Struga, focusing on how guests are informed about potential allergens in food.

The results show that allergens were only partially addressed. In 4 out of 5 menus, a general note was present—usually placed on the first or last page—stating that guests with allergies should consult the waiter. However, only two hotel menus clearly indicated allergens for each individual dish, which serves as a positive example that other hotels could follow. On the other hand, one menu contained no information about allergens, neither through symbols nor textual warnings. This is considered a serious shortcoming in guest information and represents a potential risk to the health of individuals with allergies.

This study highlights the need for greater compliance with European regulations, improved transparency in hospitality establishments, and the introduction of standardized practices for allergen labeling. Such measures contribute to enhancing food safety and consumer protection.

Keywords: allergens, food safety, hospitality, labeling, hotel menus

1. INTRODUCTION

Lawmakers in the United States adopted the Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA). ¹

On October 25, 2011, with the adoption of Regulation (EU) No. 1169/2011, new rules regarding food labeling were introduced. These rules are described in detail, with most of them coming

¹ ALLERGENS – DIFFERENCES IN EU/USA LEGAL REGULATIONS, asconsulting.rs, available at: https://asconsulting.rs/alergeni-razlike-u-zakonskoj-regulativi-eu-usa/ (accessed: 7 July 2023)

into effect on December 13, 2014 (with the exception of the rules on nutritional labeling, which came into force on December 13, 2016).²

As a candidate country for EU membership, the Republic of North Macedonia continuously aligns its legislation with the new rules applied in the European Union. Currently, the Law on Food Safety is in force (Official Gazette of the Republic of Macedonia, No. 157/10, 53/11, 1/12, 164/13, 187/13, 43/14, 72/15, and 209/2023).

Specifically, the Law Amending and Supplementing the Law on Food Safety, published in the Official Gazette of the Republic of Macedonia, No. 72 of May 5, 2015, introduces amendments and supplements to the Law on Food Safety (Official Gazette of the Republic of Macedonia, No. 157/10, 53/11, 1/12, 164/13, 187/13, and 43/14). Among other changes, six new articles—29-a, 29-b, 29-v, 29-g, 29-d, and 29-ŕ—are added after Article 29. These articles establish general rules regarding food information, responsibilities related to food information, mandatory food information, and additional mandatory information, all with the aim of aligning the national legislation with the aforementioned Regulation (EU) No. 1169/2011.

Additionally, a new Rulebook on Food Information was adopted and published in the Official Gazette of the Republic of Macedonia, No. 150 of September 2, 2015. With its entry into force, the Rulebook on the Manner of Food Labeling (Official Gazette No. 118/05) ceased to be valid.

2. GENERAL INFORMATION

The rules apply to food business operators at all stages of the food chain and to all food intended for the final consumer (including food served in catering establishments). The rules pertain to food information with the aim of ensuring a high level of protection for consumer health and interests. Food information must not be misleading.³

Food business operators are responsible for the accuracy of the food information. These are the persons responsible for placing the food on the market, or the importer in cases where the food is imported.⁴

Regulation (EU) No. 1169/2011 does not apply to private individuals who prepare and provide food for specific events (such as church, school, or village fairs), unless they are preparing the food in the capacity of food business operators.⁵

3. ALLERGENS

According to the IFS glossary (Annex 12 Glossary, IFS Food Standard Version 7), an allergen is defined as: "a food that causes an adverse reaction related to the body's immune response." Allergens are substances that trigger a chemical reaction in the body. Chemically, they are most often proteins, but they can also include polysaccharides (sugars), lipoids (fat-like substances), as well as inorganic substances. From this, we can answer the question regarding the type of hazard allergens represent: allergens fall under the **chemical hazard** category.

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² Guidance for Good Practice for Food Business Operators Regarding the New EU Food Labelling Requirements. December, 2014, pp. 4–5 (in the manual: pp. 5–6)

³ Guidance for Good Practice for Food Business Operators Regarding the New EU Requirements

⁴ Ibid.

⁶ FOOD AS AN ALLERGEN (ALLERGEN MANAGEMENT), https://asconsulting.rs/, available at: https://asconsulting.rs/hrana-kao-alergen/ (accessed: 14 September 2022)

7 Ibid.

Allergens can be classified into two types:

- **Nutritional allergens** (from food)
- Inhalation allergens (airborne allergens pollen from various trees such as poplar, birch, willow, hazel; grasses and weeds; dust mites; dust; animal hair and feathers from domestic animals and pets). Both types can cause allergic reactions.⁸

In most food production lines, more than one product is manufactured, which makes unintentional cross-contamination with allergens possible.⁹

Annex 1 of the *Rulebook on Food Information*, published in the *Official Gazette of the Republic* of Macedonia, No. 150 of 2.09.2015, defines a list of 14 substances or products that cause allergies or intolerances, as follows:

SUBSTANCES PRODUCTS CAUSING ALLERGIES 1: OR OR Annex **INTOLERANCES**

- Cereals containing gluten, namely: wheat, rye, barley, oats, spelt, kamut or their hybridized strains and products thereof, except:
 - (a) wheat-based glucose syrups including dextrose;
 - (b) wheat-based maltodextrins;
 - (c) barley-based glucose syrups;
 - (d) cereals used for the manufacture of alcoholic distillates including ethyl alcohol of agricultural origin.
- 2. Crustaceans and products thereof.
- 3. Eggs and products thereof.
- 4. Fish and products thereof, except:
 - (a) fish gelatin used as a carrier for vitamins or carotenoid preparations;
 - (b) fish gelatin or isinglass used as a fining agent in beer and wine.
- 5. Peanuts and products thereof.
- 6. Soybeans and products thereof, except:
 - (a) fully refined soybean oil and fat;
 - (b) natural mixed tocopherols (E306), natural D-alpha tocopherol, natural D-alpha tocopherol acetate, and natural D-alpha tocopherol succinate derived from soybeans;
 - (c) vegetable oils derived phytosterols and phytosterol esters from soy;
 - (d) plant stanol esters produced from sterols derived from soybean vegetable oil.
- 7. Milk and products thereof (including lactose), except:
 - (a) whey used for the manufacture of alcoholic distillates, including ethyl alcohol of agricultural origin;

⁸ Ibid.

⁹ Allergens. avicena.gov.mk. Available at: https://avicena.com.mk/proizvod/алергени/

- o (b) lactitol.
- 8. **Nuts**, namely: almonds (Amygdalus communis L.), hazelnuts (Corylus avellana), walnuts (Juglans regia), cashew nuts (Anacardium occidentale), pecan nuts (Carya illinoinensis), Brazil nuts (Bertholletia excelsa), pistachio nuts (Pistacia vera), macadamia nuts or Queensland nuts (Macadamia ternifolia), and products thereof, except nuts used for the manufacture of alcoholic distillates including ethyl alcohol of agricultural origin.
- 9. Celery and products thereof.
- 10. Mustard and products thereof.
- 11. Sesame seeds and products thereof.
- 12. **Sulfur dioxide and sulphites** in concentrations exceeding 10 mg/kg or 10 mg/liter in terms of total SO₂ to be calculated for products ready for consumption or reconstituted according to the manufacturer's instructions.
- 13. Lupin and products thereof.
- 14. Mollusks and products thereof. 10

3.1. Allergens – differences in legislation between the EU and the USA

Food legislation is not uniform across all parts of the world. Therefore, when exporting food products to countries such as the United States or Canada, it is crucial to align product labeling with the **laws and requirements** of the **importing country**.¹¹

Given that research shows about 12% of the population suffers from food allergies, and that this number is increasing, identifying allergens in food products and declaring them correctly is a top priority. However, legislation and labeling methods vary between countries.¹²

EU Legislation

According to **Regulation (EU) No. 1169/2011** of the European Parliament and of the Council, the following foods are designated as allergens responsible for over **90% of allergic reactions**:

- Cereals containing gluten (e.g., wheat, rye, barley, oats, spelt, kamut or their hybridized strains) and products thereof
- Crustaceans and products thereof
- Eggs and egg products
- Fish and fish products
- Peanuts and peanut products
- Soybeans and soybean products
- Milk and dairy products (including lactose)
- Tree nuts, specifically: almonds (Amygdalus communis L.), hazelnuts (Corylus avellana), walnuts (Juglans regia), cashews (Anacardium occidentale), pecans (Carya

¹⁰ Rulebook on Food Information, published in Official Gazette of the Republic of Macedonia, No. 150 of 2 September 2015, and Guidance for Good Practice for Food Business Operators Regarding the New EU Food Labelling Requirements (mostly applicable from 13 December 2014), prepared by the Food and Veterinary Agency (pp. 44–45)

¹¹ ALLERGENS – DIFFERENCES IN EU/USA LEGAL REGULATIONS

¹² Ibid.

illinoinensis), Brazil nuts (Bertholletia excelsa), pistachios (Pistacia vera), macadamia nuts (Macadamia ternifolia)

- Celery and products thereof
- Lupin and products thereof
- Mollusks and products thereof
- Mustard and products thereof
- Sesame seeds and products thereof
- Sulfur dioxide and sulphites in concentrations exceeding 10 mg/kg or 10 mg/l (expressed as SO₂).¹³

Regulation 1169/2011 requires clear labeling of all food additives, processing aids, and other substances or products known to cause allergies or intolerances. This enables consumers especially those with allergies—to make safe and informed food choices.¹⁴

Allergen labeling in the EU mandates that allergens be visibly distinguished from the rest of the ingredient list, often using **bold text**, **different fonts**, **or background colors**. ¹⁵

US Legislation

In the United States, although many foods may cause allergic reactions, the Food Allergen Labeling and Consumer Protection Act (FALCPA) of 2004 identifies eight "major allergens":

- 1. Milk
- 2. Eggs
- 3. Fish
- Shellfish (e.g., crab, lobster, shrimp) 4.
- 5. Tree nuts (e.g., almonds, walnuts)
- 6. **Peanuts**
- 7. Wheat
- Sov¹⁶

As of January 1, 2023, sesame has been added as the ninth major food allergen.¹⁷

Note:

- Highly refined oils derived from these foods, and
- Ingredients exempted via petition or notification under FALCPA, are **not required** to be labeled as allergens.¹⁸

FALCPA mandates that food labels clearly identify the food source of all ingredients that are or contain proteins from the major allergens. This can be done in two ways:

In parentheses following the name of the ingredient in the ingredients list: 1.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Ibid.

- o e.g., "lecithin (soy)", "flour (wheat)", "whey (milk)"
- 2. In a "Contains" statement directly after or next to the ingredients list:
 - o e.g., "Contains: wheat, milk, soy". 19

Companies that **export food products** must ensure **compliance with the allergen legislation** of the **importing country**, as **differences in laws** can lead to **mislabeling**, regulatory **non-compliance**, and **health risks** for allergic consumers.²⁰

4. POSITIVE LEGAL REGULATIONS GOVERNING RULES ON FOOD INFORMATION WITH AN EMPHASIS ON ALLERGENS IN THE REPUBLIC OF NORTH MACEDONIA

The Law Amending and Supplementing the Law on Food Safety, published in the Official Gazette of the Republic of Macedonia No. 72 on May 5, 2015, amends and supplements the Law on Food Safety (Official Gazette of the Republic of Macedonia No. 157/10, 53/11, 1/12, 164/13, 187/13, and 43/14), whereby six new articles are added after Article 29: Articles 29-a, 29-b, 29-c, 29-d, 29-e, and 29-f.²¹

Article 29-a establishes General Rules on Food Information and reads as follows:

- "(1) Food business operators must provide all food information in order to ensure a high level of protection of consumer health and their interests, allowing final consumers to make informed choices based on that information and to use food safely, with particular attention to health, economic, environmental, social, and ethical factors. This information must comply with the food information rules outlined in paragraph (3) of this Article.
- (2) The rules on food information aim to enable the free movement of food placed on the market while taking into account the need to protect the interests of producers and promote the production of safe and quality products.
- (3) The rules on food information cover:
 - General principles for labeling, presentation, and advertising of food,
 - General and specific requirements for food labeling, and
 - Responsibilities of food business operators regarding the provision of food information.
- (4) Food business operators must display food information at all stages of food production, especially in the production chain phases for which they are responsible. This applies to all types of food intended for the final consumer, including food products delivered by and to large suppliers.
- (5) Any food intended for delivery to the final consumer or to large food suppliers and catering facilities must be accompanied by appropriate food information in accordance with the regulation from Article 29-d, paragraph (3) of this Law.
- (6) A food business operator must not mislead consumers through food information regarding: a) The characteristics of the food, particularly in relation to its nature, identity, properties, composition, quantity, durability, country or place of origin, method of manufacture or

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¹⁹ Ibid.

²¹ Law on Amendments and Supplements to the Law on Food Safety, published in the Official Gazette of the Republic of Macedonia, No. 72 of 5 May 2015

production;

- b) Attributing effects or properties to the food which it does not possess; c) Suggesting that the food has special characteristics when, in fact, all similar foods possess such characteristics, especially by emphasizing the presence or absence of certain ingredients and/or nutrients;
- d) Through appearance, description, or pictorial representation, implying the presence of a specific food or ingredient, when a naturally occurring component or commonly used ingredient has been replaced by a different component or ingredient.
- (7) Food information must be accurate, clear, and easily understood by the consumer.
- (8) The provisions of paragraph (6) of this Article also apply to: a) Advertising, and
- b) Presentation of food products, particularly their shape, appearance or packaging, the way packaging materials are used, and the setting in which food products are displayed or sold."²²

Article 29-b establishes Responsibilities for Food Information and reads as follows:

- "(1) Responsibility for food information lies with the food business operator who produces, packages, or imports the food, or the one who places the food on the market and under whose name or business name the food is marketed in the Republic of Macedonia.
- (2) The food business operator responsible for the food information ensures the presence and accuracy of the food information.
- (3) Food business operators who do not influence the food information must not supply, deliver, provide, use, or sell food which they know or suspect, based on their professional knowledge, does not comply with the specific food safety requirements and food labeling rules.
- (4) Food business operators, within the business activities under their control, must not modify labeling information that accompanies the food if such modifications would mislead consumers or otherwise reduce the level of consumer protection and the ability of the final consumer to make informed choices. They are responsible for any changes made to the food information on the label.
- (5) Food business operators, within the business activities under their control, must ensure compliance with food labeling rules and specific food safety requirements for different types of food, and in doing so, must verify whether these requirements are fulfilled, taking into account their responsibilities under paragraphs (2), (3), and (4) of this Article.
- (6) Food business operators, within the business activities under their control, must ensure that information regarding food that is not pre-packaged but intended for the final consumer or for delivery to large suppliers is passed on to the receiving food business operator, in order to provide, where necessary, mandatory food information to the final consumer.
- (7) Food business operators, within the business activities under their control, must ensure that the mandatory and additional mandatory food information related to the specifics of certain types or categories of food products is provided on the packaging label, on a label affixed to the packaging, or in commercial documents relating to the food products, provided these documents either accompany the food to which they refer or are sent before or at the time of delivery, in the following cases:
- (a) When pre-packaged food is intended for the final consumer but is marketed at a stage prior to sale to the final consumer, and when the sale to a large supplier is not part of that stage; and

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²² Ibid.

- (b) When pre-packaged food is intended for delivery to large suppliers for preparation, processing, splitting, or cutting.
- (8) Food business operators are obliged to ensure that mandatory information, such as the name of the food, the minimum durability date or "use by" date, any special storage conditions and/or conditions of use, and the name or business name and address of the food business operator referred to in Article 29-d, paragraph (1), items (a), (e), (g), and (h) of this Law, is indicated on the external packaging in which the food products are prepared for market placement.
- (9) Food business operators who deliver food to other food business operators that is not intended for the final consumer or large suppliers must ensure that the receiving operators are provided with sufficient information to enable them to fulfill their obligations under paragraph (2) of this Article."²³

Article 29-v establishes Food Information, whereby, among other things, in paragraph (1), indent 5 of the same Article, it is determined that each food shall be labeled, among other food information, with substances or products causing allergies or intolerances. The aforementioned Article 29-v of the Law on Food Safety reads in full as follows:

"(1) Each food shall be labeled with the following food information:

- mandatory food information;
- additional mandatory food information related to the specific characteristics of certain types or categories of food products;
- voluntary food information, additional forms of expression and presentation of the food;
- the manner of food labeling, detailed provisions for mandatory labeling and exemptions from mandatory labeling;
- substances or products causing allergies or intolerances;
- food products for which the labeling must include one or more additional characteristics;
- food products exempt from the requirement for a mandatory nutrition declaration;
- name of the food and specific accompanying characteristics and mandatory particulars alongside the name of the food;
- specific requirements regarding the labeling of "minced meat";
- specific requirements regarding the labeling of casings for sausages and indication of ingredients;
- special provisions regarding the labeling of ingredients in descending order by weight;
- indication of certain ingredients by category name rather than specific name;
- labeling of additives by their category name followed by their specific name or E-number;
- labeling of flavorings in the list of ingredients;

²³ Ibid.

- labeling of compound ingredients;
- quantitative indication of ingredients;
- labeling of net quantity;
- expiration date, "use by" date, and date of freezing;
- labeling of types of meat for which country of origin or place of provenance is mandatory;
- labeling of alcoholic strength;
- recommended daily reference intakes for vitamins and minerals;
- reference intakes for energy and specified nutrients, excluding vitamins and minerals;
- labeling of conversion factors, conversion factors for calculating energy;
- expression and presentation of nutrition labeling; and
- the manner of presenting voluntary food information.

(2) Mandatory food information includes information that falls within one of the following categories:

- (a) regarding the identity and composition, properties, or other characteristics of the food;
- (b) regarding the protection of consumer health and safe use of food, which especially includes:
 - compositional properties that may be harmful to the health of specific groups of consumers;
 - durability, storage, and safe usage; and
 - the impact on health, including risks and consequences related to harmful and hazardous consumption of food; and (c) regarding nutritional characteristics to enable consumers to make appropriate choices based on this information, thereby providing an opportunity for choice for consumers with special dietary requirements."²⁴

Article 29-g establishes Mandatory Food Information, whereby, in paragraph (1), item (c), it is determined that the food business operator is obliged to indicate on the food label, in addition to other mandatory food information, any ingredient or processing aid that causes allergies or intolerances and that is used in the manufacture or preparation of the food and is still present in the final product, even in an altered form. The aforementioned Article 29-g of the Law on Food Safety reads in full as follows:

"(1)	The fo	od busines	ss ope	rator shall i	ndicate the fo	ollowir	ig manda	itory foo	d infor	mation
on				the		foo	d			label:
(a)		the		name		of		the		food;
(b)		th	ne		list		of		ingre	edients;
` /	, .			_	causes allergiond is still prese					
form	;									
(d)	the	quantity	of	certain	ingredients	or	categori	es of	ingre	edients;
(e)		the	net		quantity		of			food;
(f)	the	date	of	minimum	durability	or	the	"use	by"	date;

²⁴ Ibid.

- (g) special storage conditions and/or conditions of use;
- or business name and address of the food business operator; (h) the name
- origin place of provenance; (i) the country of or
- for use when necessary to ensure proper use instructions of the food; (k) in the case of beverages containing more than 1.2% alcohol by volume, the actual alcoholic volume shall be indicated; (1) nutrition information of the food.
- (2) The information in paragraph (1) of this Article shall be presented in words and numbers. It may additionally be expressed through pictograms or symbols.
- (3) The Director of the Agency shall prescribe the food information, the procedure for approving pictograms or symbols as a means of expressing food information, the required documentation, and the amount of the costs in the procedure for issuing the approval, upon prior consent of the Government of the Republic of Macedonia."25

Pursuant to Article 10 of the Law Amending and Supplementing the Law on Food Safety published in the Official Gazette of the Republic of North Macedonia No. 209/23 of 05 October 2023, amending the Law on Food Safety (Official Gazette of the Republic of Macedonia Nos. 157/10, 53/11, 1/12, 164/13, 187/13, 43/14, 72/15, 84/15, 213/15, 39/16, 64/18), in the above-mentioned Article 29-g, paragraph (3), the words: "upon prior consent of the Government of the Republic of Macedonia" shall be deleted.²⁶

Article 29-d establishes Additional Mandatory Information and reads as follows:

"(1) In addition to the mandatory information, the Agency, in the regulations on specific food safety requirements for particular types or categories of food from Article 27 paragraph (11) of this Law, shall prescribe additional mandatory information due to the specificities and characteristics of particular types or categories of food products. (2) Additional mandatory information is intended to provide the consumer with information regarding the particular types or categories of food products, taking into account technical progress, scientific developments, the protection of consumers' health, and the safe use of food."27

Article 29-gj reads as follows:

Mandatory food information must be accessible and easily (2) In the case of pre-packaged food or food in its original packaging, the mandatory information must directly the packaging. appear on (3) The Director of the Agency shall prescribe the food information that must appear on the food labeling, upon prior consent of the Government of the Republic of Macedonia."²⁸

Considering the above stated in Articles 29-v and 29-g of the Law on Food Safety (Official Gazette of the Republic of Macedonia, No. 157/10, 53/11, 1/12, 164/13, 187/13, 43/14, 72/15, 84/15, 213/15, 39/16, 64/18, and Official Gazette of the Republic of North Macedonia No. 209/23),

it can be concluded that allergens fall under the category of Mandatory Food Information, information types of the protection of consumers' health and the safe use of food, particularly including:

 $^{^{26}}$ Official Gazette of the Republic of Macedonia," No. 209 of 5 October 2023, p. 2

²⁷ Law on Amendments and Supplements to the Law on Food Safety, published in the Official Gazette of the Republic of Macedonia, No. 72 of 5 May 2015

²⁸ Ibid.

• composition properties that may be harmful to the health of certain groups of consumers.

Pursuant to Article 97 of the Law Amending and Supplementing the Law on Food Safety, published in the Official Gazette of the Republic of North Macedonia No. 209/23 dated October 5, 2023, which amends the Law on Food Safety (Official Gazette of the Republic of Macedonia No. 157/10, 53/11, 1/12, 164/13, 187/13, 43/14, 72/15, 84/15, 213/15, 39/16, 64/18),

Article 133 is amended, and among other things, in paragraph 1 point 9, it is stipulated that:

A fine shall be imposed in the amount of:

- from 300 to 600 euros in denar countervalue for micro traders,
- from 600 to 1,000 euros for small traders,
- from 1,000 to 2,000 euros for medium traders,
- from 3,000 to 6,000 euros for large traders,

for a misdemeanor committed by a legal entity if: 9) the food labeling does not include the mandatory food information (Article 29-g paragraph (1)).

Moreover, the above-mentioned Law Amending and Supplementing the Law on Food Safety, published in the Official Gazette No. 209/23 dated October 5, 2023, ensures alignment with Regulation (EU) 2017/625 of the European Parliament and of the Council of 15 March 2017 on official controls and other official activities performed to ensure the application of food and feed law, rules on animal health and welfare, plant health and plant protection products, amending Regulations (EC) No. 999/2001, (EC) No. 396/2005, (EC) No. 1069/2009, (EC) No. 1107/2009, (EU) No. 1151/2012, (EU) No. 652/2014, (EU) 2016/429 2016/2031 of the European Parliament and of the Council. Regulations (EC) No. 1/2005 and (EC) No. 1099/2009 and Directives 98/58/EC, 1999/74/EC, 2007/43/EC, 2008/119/EC and 2008/120/EC and repealing Regulations (EC) No. 854/2004 and (EC) No. 882/2004 of the European Parliament and of the Council, Council Directives 89/608/EEC, 89/662/EEC, 90/425/EEC, 91/496/EEC, 96/23/EC, 96/93/EC 97/78/EC and Council Decision 92/438/EEC (CELEX number and 32017R0625).²⁹

Based on Article 29-g paragraph (3) of the Law on Food Safety ("Official Gazette of the Republic of Macedonia" no. 157/10, 53/11, 1/12, 164/13, 187/13, 43/14, and 72/15), the Director of the Food and Veterinary Agency enacted the RULEBOOK ON FOOD INFORMATION published in the "Official Gazette of the Republic of Macedonia", no. 150 dated 2.09.2015.³⁰

This Rulebook aligns with **Regulation (EU) No 1169/2011** of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004, CELEX 32011R1169.³¹

²⁹ "Official Gazette of the Republic of Macedonia," No. 209 of 5 October 2023, p. 2

³⁰ "Official Gazette of the Republic of Macedonia," No. 150 of 2 September 2015, p. 37

³¹ Rulebook on Food Information, published in the Official Gazette of the Republic of Macedonia, No. 150 of 2 September 2015

In the aforementioned Rulebook, in **CHAPTER 3, titled MANDATORY FOOD INFORMATION, Section 1**, Article 5 paragraph 1 determines the basic data and food information that are mandatory according to Article 29-g of the Law on Food Safety, including:

Point 3: Any ingredient or processing aid or other substance that causes allergies or intolerances and is listed in **Annex 1**, which is an integral part of this Rulebook, and is used in the manufacture or preparation of food and is still present in the final product, even in an altered form, must be emphasized and clearly distinguished from other ingredients in the ingredients list.³²

Article 5 of the above-mentioned Rulebook is identical to **Article 29-g** of the Law on Food Safety.

Furthermore, in CHAPTER 3, titled MANDATORY FOOD INFORMATION, Section 2 – titled Detailed Provisions on Mandatory Information, Article 15 sets the requirements that ingredients causing allergies or intolerances from Article 5 paragraph 1 point 3 must fulfill.

Article 15 of the above-mentioned Rulebook reads in full:

- (1) Ingredients that cause allergies or intolerances from Article 5 paragraph (1) point (3) of this Rulebook must meet the following requirements:
 - 1. Substances or products causing allergies or intolerances shall be indicated in the list of ingredients in accordance with the rules established in Article 12 paragraph (1) of this Rulebook, clearly referring to the name of the substance or product as listed in **Annex 1** of this Rulebook; and
 - 2. The name of the substance or product listed in **Annex 1** must be clearly emphasized using different font styles, formats, or font and background colors so that it is clearly distinguishable from the list of ingredients.³³

In the absence of a list of ingredients, the indication of substances or products causing allergies or intolerances shall include the word "contains" followed by the name of the substance or product.

When several ingredients or processing aids in food are derived from substances or products that cause allergies or intolerances, each such ingredient or processing aid shall be clearly stated on the label.

The indication of ingredients that cause allergies or intolerances from Article 5 paragraph (1) point (3) of this Rulebook is not required in cases where the name of the food clearly refers to the substance or affected product.

(2) The provisions for ingredients causing allergies or intolerances from paragraph (1) of this Article also apply to food in **catering establishments and self-service food**.

According to Article 30 paragraph 1 point 3 of the RULEBOOK ON FOOD INFORMATION published in the "Official Gazette of RM", no.150 of 2.09.2015, allergens are determined as mandatory information for non-prepacked food, and under paragraph 2 point 3 of the same Article, allergens are determined as mandatory food information in catering establishments, and must be indicated on the menu or at the food display point (in case of self-service). The Article reads:

(1) Mandatory information for food that is not prepacked includes the following:

³² Rulebook on Food Information, published in the Official Gazette of the Republic of Macedonia, No. 150 of 2 September 2015

³³ Ibid.

- 1. the name of the food;
- 2. the list of ingredients;
- 3. any ingredient or processing aid or other substance that causes allergies or intolerances and is listed in **Annex 1**, which is an integral part of this Rulebook, and is used in the manufacture or preparation of the food and is still present in the final product, even in an altered form, must be emphasized and clearly distinguished from other ingredients in the list of ingredients;
- 4. the net quantity of the food; and
- 5. the date of minimum durability or the "use by" date.
- (2) Mandatory food information in **catering establishments** must be indicated in the menu or at the point of display of the food (in case of self-service), and includes:
 - 1. the name of the food;
 - 2. the list of ingredients; and
 - 3. any ingredient or processing aid or other substance that causes allergies or intolerances and is listed in **Annex 1**, which is an integral part of this Rulebook, and is used in the manufacture or preparation of the food and is still present in the final product, even in an altered form, must be emphasized and clearly distinguished from other ingredients in the list of ingredients.³⁴

In **Annex 1** of the **RULEBOOK ON FOOD INFORMATION** published in the "Official Gazette of RM", no.150 of 2.09.2015, a list of **14 substances or products** that cause allergies or intolerances is defined. These substances are listed above in the section on allergens.³⁵

5. MANDATORY FOOD INFORMATION – PRESENTATION AND LABELLING OF ALLERGENS ON THE MENU

5.1. Mandatory food information

As previously mentioned, the mandatory food information is determined by Article 29-g of the Law on Food Safety ("Official Gazette of the Republic of Macedonia" No. 157/10, 53/11, 1/12, 164/13, 187/13, 43/14, and 72/15). These requirements are also defined by Article 5 of the Rulebook on Food Information ("Official Gazette of the Republic of Macedonia" No. 150 dated 2.09.2015).

5.2. Presentation of mandatory food information Since mid-May 2016, new regulations also apply to pre-packaged food being sold. The Food Agency has specified that the following information must be indicated using words and numbers: the name of the food, a list of ingredients, any ingredient that may cause an allergic reaction in people (highlighted in bold), quantity of ingredients, net quantity of food, expiration date, special storage conditions, name and address of the food business operator, country of origin, and instructions for use.³⁶

The minimum font size must be 1.2 millimeters to ensure visibility for consumers seeking information about the product they intend to purchase. The alcohol content by volume must

³⁴ Rulebook on Food Information, published in the Official Gazette of the Republic of Macedonia, No. 150 of 2 September 2015

³⁵ Rulebook on Food Information, published in the Official Gazette of the Republic of Macedonia, No. 150, dated 2 September 2015

³⁶ New Rules: Cafe Owners Must Declare If Food Contains Allergens, skopjeinfo.mk, available at: https://skopjeinfo.mk/novi-pravila-kafeandzhiite-kje-mora-da-kazhuvaat-dali-hranata-ima-alergeni (accessed: 29 March 2016)

also be indicated (if it contains more than 1.2% alcohol). As of December 13, 2016, the nutritional properties of the food must also be labeled.³⁷

For Pre-packaged Food:

- On the packaging or on the label (labels must not be easily removable; the competent authority must individually assess the practicality of self-adhesive labels);
- In addition to words and numbers, pictograms and symbols may also be used;
- Easily visible and placed in a clearly visible location (mandatory food information must not be hidden);
- Indelible (cannot be erased or removed);
- Clearly legible: font size of at least 1.2 mm, or larger (or at least 0.9 mm if the surface packaging largest area of the is less than 80 cm²). font is When measuring the font size, the x-height of the used. The table below illustrates how the x-height of the selected font is measured.

х-ВИСИНА



1	горна линија							
2	линија за висина	на						
	големи букви							
3	средна линија							
4	основна линија							
5	долна линија							
6	х-висина							
17	големина на фонт							

Figure 1. How the x-height of the selected font is measured.

• The name, net quantity, and alcoholic strength must be indicated in the same field of vision (this does not apply to glass bottles intended for reuse and to containers with a largest surface area of less than 10 cm²). "Field of vision" refers to the entire surface of the packaging that can be read from a single viewing angle.³⁸

For Food That Is Not Pre-packaged:

• It is mandatory to provide information about substances that cause allergic reactions (this is a legal requirement and it is not sufficient to provide such information only upon the consumer's request. This requirement applies to food sold in restaurants, pubs, and cafés. The information may be presented on menus, boards, signs, or verbally communicated by the establishment's staff. In the latter case, it must be clearly stated that allergen information can be obtained by asking a staff member—this must be indicated on a notice board, menu, sign, or other easily visible label for customers. This requirement also applies to pre-packaged food intended for direct sale, such as in delicatessens, bakeries, sandwich bars, takeaway food outlets, childcare facilities,

³⁷ New Rules: Café Owners Must Declare Whether Food Contains Allergens

³⁸ Guidance for Good Practice for Food Business Operators Regarding the New EU Food Labelling Requirements, December 2014, pages 4–

^{5 (}in the manual: pages 5–6)

healthcare institutions, detention centers, delivery services, and charitable organizations where food is provided for free).

• No other information is required (unless the competent authority has established national rules—see the section on "National Measures," point four). Example: For non-pre-packaged food, it is not necessary to indicate the date of freezing (e.g., for frozen meat, frozen meat products, or frozen unprocessed fishery products). This applies to EU member states. According to national regulations in Macedonia, however, the date of freezing must be indicated.³⁹



Figure 2. Example of Labelling

5.3. Labelling of allergens on the menu

Catering establishments are required to indicate in their menus whether the food they sell and serve contains allergens. It is mandatory to provide information about substances that cause allergic reactions.

This applies to food sold in restaurants, pubs, and cafés. The information may be presented on the menu, on boards, or verbally communicated by the establishment's staff. 40

Caterers should choose their own method for informing consumers about allergens in food. They may list the allergens directly in the menu or on a board.

Alternatively, they may include a message or place a notice on a board reminding customers to ask whether allergens are present and which ones, after which the staff will provide an answer. However, in such cases, the staff must be properly trained to be able to explain this information accurately.⁴¹

6. MORE DETAILED INFORMATION ON ALLERGENS AS MANDATORY FOOD INFORMATION

Regulation (EU) No. 1169/2011 retains elements from previous legislation and introduces new ones, including the following:

• Highlighting allergens, for example: peanuts or milk, in the list of ingredients.

³⁹ Guidance for Good Practice for Food Business Operators Regarding the New EU Food Labelling Requirements, December 2014, pages 7–8 (in the manual: pages 8–9)

⁴⁰ New Rules: Café Owners Must Record Allergens in the Menu, skopjeinfo.mk, available at: https://skopjeinfo.mk/novi-pravila-kafeandzhiite-kje-mora-da-gi-zapishat-alergenite-vo-meni (accessed: 22 March 2016)

⁴¹ New Rules: Café Owners Must Record Allergens in the Menu, skopjeinfo.mk

- Substances that cause allergic reactions must be indicated not only for prepackaged food but also for non-pre-packaged food, including food sold in restaurants, cafés, bed-and-breakfasts, catering vans, etc. (As mentioned earlier, a list of allergens or substances causing intolerance is available and aligned with the EU list).
- Improved readability, i.e., a minimum text size or emphasis (in the case of allergens). 42

6.1. Allergen Labelling

There is a list of 14 substances that cause allergic reactions or intolerances. This requirement applies not only to food but also to sauces, spices, and beverages (such as wine, juices, cocktails, and smoothies).

If such a substance is present in the food, it must be listed in the ingredients in a way that clearly distinguishes it from the other ingredients on the list. The list of substances that cause allergies and intolerances is available in Regulation (EU) No. 1169/2011. ⁴³

The same list of substances that cause allergies and intolerances is harmonized in our legislation through the **RULEBOOK ON FOOD-RELATED INFORMATION**, published in the Official Gazette of the Republic of Macedonia, No. 150 dated 2.09.2015, listed in Annex 1 of the rulebook, and these have already been provided above in the section on Allergens.

Example: milk powder (or **milchpulver**, or **poudre de lait**, or **latte in polvere**), where the allergenic ingredient is highlighted in bold. Below are examples of how allergens can be emphasized in the list of ingredients.⁴⁴

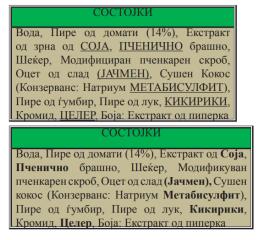


Figure 3. Example of Allergen Labelling

If the allergen is not obvious from the name of the ingredient, there must be a clear indication of the allergen's name. Examples: casein should be listed as "casein (milk)", tofu as "tofu (soy)", and sesame oil as "sesame oil (sesame)".

⁴² Guidance for Good Practice for Food Business Operators Regarding the New EU Food Labelling Requirements, (mostly applicable from 13 December 2014), Prepared by the Food and Veterinary Agency (pp. 32–33)

⁴⁴ Guidance for Good Practice for Food Business Operators Regarding the New EU Food Labelling Requirements, December 2014, (mostly applicable from 13 December 2014), Prepared by the Food and Veterinary Agency, pages 15–20

In the case of food for which a list of ingredients is not required but that contains substances causing allergic reactions, the allergens must still be indicated (allergen information must be specific to the food, complete, and accurate).

Allergen indication is not necessary when the name of the food clearly refers to the relevant substance.⁴⁵

Example: peanut butter, milk, butter, soy flour. 46

However, caution is needed because the names of food products may identify one or more allergens contained in a particular food item, but not all of them. For example, egg mayonnaise contains eggs, so there is no need to separately label the eggs. However, other allergens, such as mustard, may also be present and must be labeled separately.⁴⁷

6.2. Exceptions to Allergen Labelling

The European Food Information Council requires that the presence of allergens be indicated in the final food products. However, some ingredients derived from foods listed in Annex II will not cause allergic reactions because they are highly processed (for example, fully refined soybean oil or wheat glucose syrups). This is because the allergen/protein is removed, and the product has been assessed by the European Food Safety Authority (EFSA) as not posing a risk of allergic reaction to consumers.

Substances derived from an allergenic ingredient, which are specifically exempted from labelling according to Annex II (for example: wheat glucose syrup), do not need to be labelled. In the case of wine or wine fining agents obtained from eggs or milk, Regulation (EU) No 579/2012 must be taken into account. When determining whether egg- or milk-based fining agents are still present in the wine, they should not be found at the detection limit (<0.25 mg per liter), as specified in Regulation (EU) No 579/2012. When egg or milk fining agents are not detected at these levels, they are exempt from allergen labelling requirements.⁴⁸

6.3. Labelling of Certain Substances or Products Causing Intolerances

Cereals containing gluten must be listed in the ingredients using the specific name of the cereal, i.e., wheat (including spelt and Khorasan), rye, barley, or oats. Where "spelt," "Khorasan," and "kamut" are used, a specific reference to wheat must be provided, for example, "spelt (wheat)," "Khorasan (wheat)," and "kamut (wheat)."

Voluntary inclusion of gluten in the list of ingredients after the mandatory labelling of the cereal containing gluten is possible. However, according to the Regulation, the cereal must be emphasized, not the gluten; for example, "barley (gluten)."

Where food is voluntarily labelled as "gluten-free," it must comply with the requirements of Commission Regulation No. 41/2009 concerning the composition and labelling of food suitable for people with gluten intolerance.

Ingredients that are or have been derived from cereals containing gluten must be highlighted in the list of ingredients. This clearly indicates to people allergic to specific cereals to avoid such food; for example: "barley malt extract."

 $^{^{\}rm 45}$ Guidance for Good Practice for Food Business Operators

⁴⁶ Ibid

⁴⁷ Ibid.

⁴⁸ Ibid.

Mandatory information about the presence of substances listed in Annex II that cause allergies must, as previously mentioned, be emphasized against other ingredients in the list by using a different font, size, style, or background color.

The Food Safety Authority (БОХ) may use an allergy advice statement on the product label to explain how allergens are highlighted within the list of allergens. ⁴⁹

Example:

"Allergy advice: for allergens, see ingredients in bold font" or "Allergy advice: for allergens, including cereals containing gluten, see ingredients marked in blue". 50

7. RESEARCH IN HOTELS IN STRUGA 7.1. Objective and Methods

The aim of this research is to determine the current state regarding the availability and accuracy of allergen information in the menus of hotel restaurants in the city of Struga. Additionally, the study aims to identify potential opportunities for improving the food offer in order to increase the safety and satisfaction of guests, especially those with specific health needs.

The research was conducted during April 2025. Five hotels were included in the study: Hotel Izgrev, Hotel Mirage, Hotel Freya, Hotel Dishli, and Hotel Drim. The research methodology included direct observation and analysis of the current à la carte menus, as well as informal, semi-structured interviews with waiters present during the field visit. All participating waiters voluntarily agreed to take part and were informed about the purpose of the research, with all data recorded anonymously.

Due to the limited sample size and focus only on a few hotel establishments, additional research should be conducted in other hospitality facilities in the Struga region (restaurants, cafés, guesthouses, etc.) to obtain a complete picture of the situation in the city's overall hospitality offer.

7.2. Main Research **Ouestion Q1.** nutritional allergens indicated menus? Are values and in the Nutritional values were not indicated in any of the analyzed menus. This presents a serious challenge, especially for guests with chronic health conditions such as diabetes. The absence of information on calories, carbohydrates, fats, and proteins limits the ability to make informed food choices and may increase health risks for these individuals.

Allergens were partially addressed. In 4 out of 5 menus, there was a general note, usually placed on the first or last page, stating that guests with allergies should consult the waiter. Only two of the hotel menus clearly listed allergens for each individual dish. This is a positive example that could be followed by the other hotels. In one out of the five menus, allergens were not indicated in any form, which represents a serious shortcoming in guest information and a potentially risky factor for people with allergies, as they cannot identify which dishes are safe for them to consume in a timely manner. This directly affects their health and well-being.

7.3. Recommendations Based on the obtained results, the following measures are recommended for improvement:

• Introduction of nutritional information: Hotels should provide detailed nutritional information for each dish on the menu. This information should include calorie count, and the amount of carbohydrates, fats, proteins, and other relevant data,

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⁴⁹ Ibid.

⁵⁰ Ibid.

enabling informed and healthy choices for all guests, especially for those with special dietary needs.

- Clear and systematic allergen labeling: Each dish on the menu should be accompanied by textual indicators highlighting the presence of potential allergens (e.g., nuts, seafood, eggs, soy, etc.). This approach increases transparency and reduces the likelihood of adverse reactions in allergic individuals.
- Creation of specialized menus: It is recommended that hotels develop specialized sections in their menus for guests with specific health needs. These menus may include sugar-free meals, meals with a low glycemic index, gluten-free, lactose-free, or vegan/vegetarian options.
- Continuous staff education: Staff, especially waiters and chefs, should regularly attend training on nutrition and allergy management. This will improve their readiness to communicate with guests who have health restrictions.
- Following global food trends: Hotels should aim to modernize their food offer by introducing healthy alternatives such as organic products, sugar-free, lactose-free or caffeine-free beverages, as well as meals tailored to special diets (e.g., keto, vegan, gluten-free, etc.).

By implementing these recommendations, hotels in Struga will contribute to creating a more inclusive, safe, and health-oriented hospitality offer. In addition to improving the experience of current guests, such steps could attract new categories of tourists, especially those who care about their health or have specific dietary requirements. In this way, hotels would not only enhance the quality of their service but also increase their contribution to the overall health of tourists and the promotion of healthy lifestyle habits.

8. CONCLUSION

On October 25, 2011, with the adoption of Regulation (EU) No. 1169/2011, new rules regarding food labeling were established. These rules are described in detail, and most of them came into effect on December 13, 2014 (with the exception of the nutrition labeling rules, which began to apply on December 13, 2016). Regulation (EU) No. 1169/2011 retained the previous elements of existing legislation while introducing new ones, including:

- Emphasizing allergenic ingredients, such as peanuts or milk, within the list of ingredients.
- Allergenic substances must be labeled not only on prepacked food (as was previously required), but also on non-prepacked food, including food sold in restaurants, cafés, bed and breakfast establishments, catering vans, etc.
- Improved legibility, such as a minimum font size or highlighting (in the case of allergens).

The Republic of North Macedonia, formerly the Republic of Macedonia, is a candidate country for EU membership and is in a continuous process of harmonizing its legislation with that of the EU. With the adoption of the **Law on Amending and Supplementing the Law on Food Safety**, published in the Official Gazette of the Republic of Macedonia No. 72 from May 5, 2015, amendments were made to the **Law on Food Safety** (Official Gazette No. 157/10, 53/11, 1/12, 164/13, 187/13, and 43/14). Among the changes, six new articles were added after Article 29—namely, Articles 29-a, 29-b, 29-v, 29-g, 29-d, and 29-f—establishing general rules on food information, responsibilities related to food information, mandatory and additional food

information, all with the aim of aligning national legislation with Regulation (EU) No. 1169/2011. A new **Rulebook on Food Information** was also adopted (Official Gazette of RM, No. 150 from September 2, 2015).

In view of the cited legal provisions, especially Articles 29-v and 29-g of the **Law on Food Safety** (Official Gazette of the Republic of Macedonia Nos. 157/10, 53/11, 1/12, 164/13, 187/13, 43/14, 72/15, 84/15, 213/15, 39/16, 64/18 and Official Gazette of the Republic of North Macedonia No. 209/23), we conclude that **allergens fall under mandatory food information**, particularly in the category of information aimed at protecting consumer health and the safe use of food, which specifically includes:

• properties of the composition that may be harmful to the health of certain consumer groups.

There is a list of 14 substances that cause allergic reactions or intolerances, available in Regulation (EU) No. 1169/2011. This same list is harmonized in our national legislation through the Rulebook on Food Information (Official Gazette of RM, No. 150 from September 2, 2015), detailed in Annex 1 of the Rulebook, and already mentioned in the section on allergens.

Allergens are part of the mandatory food information and must be indicated in both words and numbers. This requirement applies to food, sauces, spices, and beverages (such as wine, juices, cocktails, and smoothies). If such a substance is present in food, it must be listed in the ingredients in a way that clearly distinguishes it from the rest. The name of the substance or product, as listed in Annex 1 of the Rulebook on Food Information, must be **clearly highlighted** through a different font type, format, size, or background color so that it is easily distinguishable from the list of ingredients.

In the absence of an ingredient list, the mention of allergenic substances or products must include the word "contains", followed by the name of the substance or product.

If several ingredients or processing aids in the food originate from allergenic substances or products, each ingredient or processing aid must be clearly specified in the labeling.

For **non-prepacked food**, it is mandatory to provide information about allergenic substances. This is a mandatory requirement and it is not sufficient to provide the information only upon consumer request. This requirement applies to food sold in restaurants, pubs, and cafés; the information can be provided on menus, boards, cards, or verbally by the staff. In the latter case, there must be a clearly visible notice on a board, menu, or label informing customers that they can request allergen information from staff. This requirement also applies to prepacked food intended for direct sale, such as in delicatessens, bakeries, sandwich bars, takeaway outlets, childcare facilities, and healthcare institutions, as well as detention centers.

Caterers must independently choose the method by which they inform consumers about allergens. They can include allergen information in the menu or on a board. They may also display a notice reminding consumers to ask about allergens, after which the staff can provide information. In such cases, however, the staff must be properly trained to provide explanations.

The research conducted in hotels in Struga reveals that although there is basic awareness of the importance of informing guests about the presence of allergens, the implementation of this information is still insufficient and inconsistent. The lack of precise and clearly stated allergen information, as well as the complete absence of nutritional values on menus, poses a significant challenge for guests with specific health needs. This not only reduces their satisfaction but can also directly impact their safety and health.

The recommendations proposed in this paper represent realistic and applicable steps that, if adopted, would significantly improve the gastronomic offering in Struga hotels. By introducing systematic allergen and nutritional information, creating specialized menus, and continuously educating staff, hotels could create a safer and more inclusive environment for their guests.

In a broader context, this approach would contribute to raising the general level of service and enhancing the image of Struga as a tourist destination that follows modern standards and dietary trends, thereby improving the city's competitiveness at both national and international levels.

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