

ОДЕСЬКА НАЦІОНАЛЬНА АКАДЕМІЯ  
ХАРЧОВИХ ТЕХНОЛОГІЙ

**ЗБІРНИК  
НАУКОВИХ ПРАЦЬ  
*МОЛОДИХ УЧЕНИХ,  
АСПІРАНТІВ ТА СТУДЕНТІВ***



ОДЕСА  
2018

ББК 36.81 + 36.82  
УДК 663 / 664

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**Одеська національна академія харчових технологій**  
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Міністерство освіти і науки України. – Одеса: 2018. – 240 с.

Збірник опубліковано за рішенням вченої ради від 03.07.2018 р., протокол № 15  
За достовірність інформації відповідає автор публікації

РОЗДІЛ 7

**ТОВАРОЗНАВСТВО Й ЕКСПЕРТИЗА ТОВАРІВ**

НТБ ОНАХТ

1) According to the national standard, fructose and glucose content (sum of both) – not less than 70-80%, according to the Directive – not less than 60%.

2) According to the national standard, sucrose content – not more than 6%. According to the Directive, sucrose content depends on the type of honey and may not be more than 15%.

3) According to national standard, the electrical conductivity of honey has significant fluctuations (0.2-1.0 mS/cm), according to the Directive – not more than 0.8 mS/cm.

4) According to national standard, hydroxymethylfurfural (HMF) content – not more than 25 mg/kg. According to the Directive – in general no more than 40 mg/kg, and honeys of declared origin from regions with tropical climate – not more than 80 mg/kg.

5) According to the national standard, diastase activity (Shade scale) – not less than 10, according to the Directive – not less 8.

Thus, it is concluded that the implementation of EU requirements will contribute to:

- creation of an effective system of controlling the safety and quality of honey;
- increase of confidence in honey, which is realized in the domestic market due to mandatory labeling requirements;
- simplification of exports to the EU

Compliance with European requirements will help Ukraine to create conditions for trade facilitation and export growth to promising markets. It will be accompanied by greater use of production potential, by the opening new opportunities for cooperation in trade between the parties, and will increase the growth of foreign direct investment and facilitate the opening of new production capacities.

Thesis advisor – PhD in Engineering, Associate Professor Pambuk S.A.

#### References

1. Workman, D. (2018). Natural Honey Exports by Country. [Electronic source] World's Top Exports. Retrieved from: <http://www.worldstopexports.com/natural-honey-exporters>
2. Eu-ua.org. (2018). Мед натуральний: перспективи експорту до ЄС. [Electronic source] Євроінтеграційний портал. Retrieved from: <https://www.eu-ua.org/med>
3. Council Directive 2001/110/EC of 20 December 2001 relating to honey, OJ L 10, 12.1.2002, p. 47–52.

## SAFETY OF FOOD PRODUCTS

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Every day we eat variety of food, but do not even think how safe it is. The consequences of using low-quality and dangerous food are harm to health. The aim of the research is to study the influence of various factors on the safety of products. Food poisoning not only harms the health of consumers, but also damages the economy and the image of manufacturing enterprises. Food safety should be based on the absence of toxic, carcinogenic and mutagenic effects of the constituents of the product.

Pollution of products occurs under the influence of environmental factors, industrial chemical and radioactive emissions into the environment, the use of pesticides, harmful compounds that are formed during storage of raw materials or processing.

One of the most common is contamination with nitrites, which get into the product as a result of the use of chemical fertilizers. In the human body, nitrates get with vegetables and fruits about 85%, with water-10%, with meat, milk -5%. Accumulation of these in foods leads to poisoning, genetic disorders and other diseases. To reduce nitrates, products must be subjected to cooking, salting, canning, heat treatment, but not only nitrates, but also useful substances such as vitamins and minerals are lost, so scientists recommend denitrifying bacteria or treating solutions of ascorbic acid.

Radioactive contamination is the cause of internal human exposure and the increase in radionuclides in the human body through food or water. Therefore, for prevention, you need to eat food that are rich in minerals such as Ca, K, vitamins A, E, C and dietary fiber. The radionuclide is reduced by technological and cooking procedure.

Pesticides are substances that get into food from the environment. To avoid poisoning with pesticides, it was established the deadlines for slaughtering animals and harvesting after the treatment with pesticides were established. To remove pesticides from the product, evaporation and drying are used, but the effect is insignificant, as the boiling point, melting point is much greater than that used for cooking. It is known that during processing, dyes, preservatives, stabilizers are added to the product, so if contaminants of products are added to them, this will intensify the negative effect on the body. Therefore, for the safety of consumers, it is necessary to conduct research for the presence of excess impurities. The environment is the main cause of food contamination, but there are several other reasons that have a dangerous effect.

In our modern world there are new technologies associated with harsh processing conditions for raw materials or semi-products, and toxic compounds appear. In addition, unchecked nutritional supplements are widely used, and sometimes prohibited supplements are used that have a significant dose of toxic substances that have the ability to accumulate in the body and lead to difficult treat diseases.

So, there are many different factors that affect the safety of food. In order to protect yourself from dangerous products you need carefully read the composition of the product, do not use products that cause you to doubt the safety and reduce the use of food additives.

Supervisor – assistant, Untila M.P.

## **APPLICATION OF LACCASES IN HAIR DYES**

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Hair dye is a cosmetic agent for changing the color of hair for a specific time [1].

There are several compositions for steady coloring of hair, which are basically a set of two parts: a solution of dye and a solution of the developer. Usually these are synthetic chemical reagents that damage the hair, accumulate in it and can cause the appearance of allergic reactions [2].

The composition of paints includes organic dyes of various chemical groups and structures that penetrate the cortex of the hair and are fixed on keratin by reaction of salts with a carboxy or amino group, depending on the structure of the dye. The created complex with colored chemical compound provides the hair a long dyeing effect. In paints, mainly oxide dyes are used - benzene derivatives: o- and p-diamines, o- and p-aminophenols, heterocyclic compounds. Additionally, m-diamines, m-aminophenols, resorcinol, hydroquinone, etc. are

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Ум. друк. арк. 27,9.