

**ENSURING A SUSTAINABLE SUPPLY OF SAFE AND HEALTHY FOOD**Rubaba Hilal Aliyeva¹**SUMMARY**

The purpose of the research - Quality food supply has become an increasingly urgent issue in recent years. The aim of this study is to make a real contribution to food safety and to ensuring a sustainable supply of safe and healthy food.

The methodology of the research - This investigation examines the changes taking place in the climate and in global production, with their negative consequences for consumers.

The practical importance of the research - As a measure for improving food quality, there is a need for food producers to adopt the right practices.

The results of the research - Survey showed that the result of long-term ingestion of poor-quality food causes the immunity in the human body to weaken, and chronic diseases intensify, leading to a risk factor that provokes a multitude of diseases.

The scientific novelty of research - It is necessary to deal with the problem of low-quality food at the national level through increasing control over food production and introducing automation and robotization of production processes.

Keywords: foodstuffs, contaminants, food safety, nutrition, healthy food

Introduction.

Human nutrition is one of the important environmental factors determining public health. It is the right of consumers to rely on information about the quality of food and its components that is useful and clearly presented, in order to be able to make an informed choice. A balanced diet creates the conditions for normal physical and mental development and affects the body's ability to withstand the effects of adverse environmental factors. Food production and consumption are fundamental to any society and present economic, social and, in many cases, environmental implications. There should be a wide range of safe and high quality products available to consumers from all member states. And that is the essential role of the internal market. Nowadays, what seems natural to us is that we can choose from a wide variety of food products at any time. Each individual has the right to an adequate supply of safe and nutritious food. However, practically one in ten people suffer from illness after consuming contaminated food. Children cannot learn and adults cannot work without safe food: human development is not possible.

In the absence of food safety there can be no food security, and in a world in which the food supply chain has become much more complex, as a result, any unfavorable food safety incidents have negative consequences for public health, trade and the economy. Moreover, food safety is routinely perceived as a matter of course. In fact, we ignore it until we are confronted with food poisoning. Unsafe food (containing pathogenic bacteria, viruses, parasites or chemicals) leads to more than 200 different diseases, ranging from diarrhea to cancer.

Foodstuffs or the inside of foodstuffs can contain microorganisms (bacteria, viruses or parasites) which cause not only spoilage, as well as food infections and poisoning, which present a serious health hazard. In particular, if stored or prepared incorrectly, germs can reproduce heavily in foodstuffs and cause illness. It is particularly relevant for perishable foodstuffs, which should be kept refrigerated. (Klerck and Sweeney 2007)

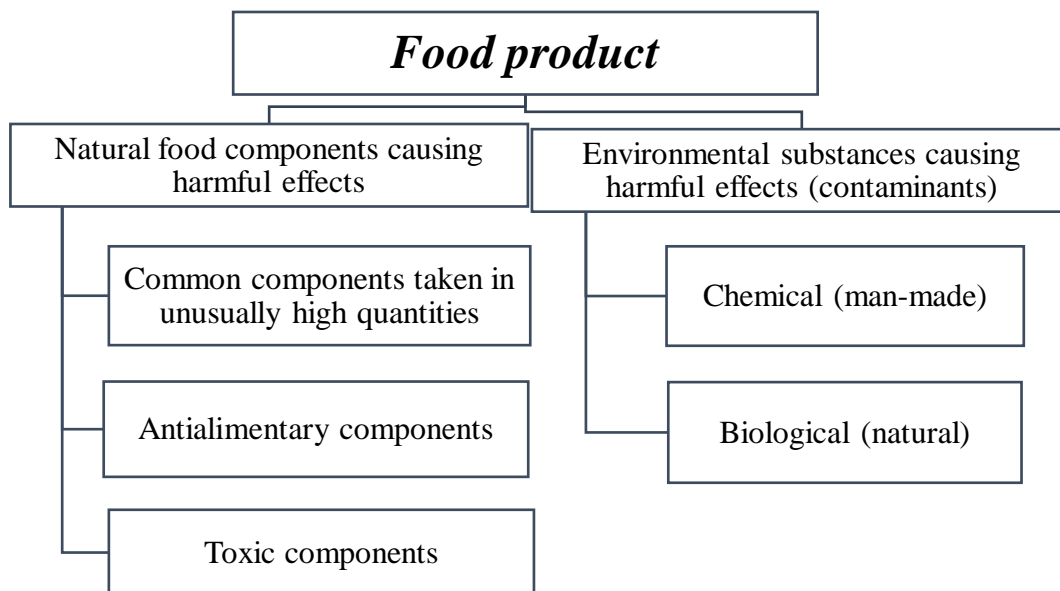
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As defined by international organizations in the field of food quality and safety, in particular the Codex Alimentarius Commission, contaminants are defined as substances that unintentionally contaminate food raw materials and foodstuffs throughout the life cycle of a product. They are toxic elements, persistent organic compounds, radionuclides with various physical and chemical properties, toxicity and possible aggregation in foodstuffs. It is necessary to distinguish a group of mycotoxins - toxic substances of natural origin - among food contaminants. (Shepherd et al.,2005)

There are different ways in which contaminants are ingested - through inhaled air, water and the skin - but the World Health Organization estimates that food is the most important contributor to the chemical load: all the above substances can accumulate in the relevant target organs and have negative effects on health when they are ingested with food. Some diseases can be caused by toxic substances present in environmental media and, in particular, by contamination in food (for example, Minamata disease caused by the consumption of fish contaminated with organic forms of mercury; nitrate-nitrite methemoglobinemia among children, caused by high doses of nitrates and nitrites in food and water) or a risk factor for various pathological conditions. (Klerck and Sweeney, 2007)

Harmful sources can be natural food components with harmful effects, chemical (man-made) and biological (natural) contaminants, as well as specially introduced substances for technological reasons.

Picture 1. Harmful substances present in foodstuffs.



What can be done to make a real contribution to food safety?

As a measure for improving food quality, it is proposed to expand the production of organic food, which is currently a guarantee of human safety and health. In this kind of production, it is prohibited to use any components that can harm humans, no matter chemical fertilizers, growth hormones, antibiotics, genetically modified organisms (GMOs) or food additives. It is necessary to deal with the problem of low-quality food at the national level



through increasing control over food production and introducing automation and robotization of production processes. (Gruere et al.,2008)

Companies must provide food safety. These preventive controls can solve the majority of food safety problems. Everyone involved in the food supply - from processing to retail - must ensure compliance with programs such as HACCP: systems to identify evaluate and control hazards from the beginning of production to the end of consumption.

Encourage the promotion of nutrition and food safety strategies in pre-schools and schools, as well as programs based on an integrated approach that include nutrition education, food taste and aesthetics, food safety and physical activity in the school curriculum; training teachers and other school staff; developing guidelines for healthy eating in schools; providing healthy choices in canteens and other food supply points in schools; creating schemes for providing fruits and vegetables and promoting the use of safe drinking water.

There is a need for agriculture and food producers to adopt the right practices. Practical approaches relating to agriculture must ensure sufficient amounts of safe food at the global level, at the same time as benefiting tomorrow's climate change mitigation and environmental impact. To ensure food safety, as food production systems transform and adapt to changing conditions, it is essential for farmers to give careful thought as to how best to address potential risks.

Result and conclusion.

Food safety is a shared responsibility. All of these different groups that are responsible for food safety - governments, regional economic bodies, development agencies, trade organizations, consumer and producer groups, academic and research institutions and the private sector - need to work together to solve the problems important to all of us in the world, in particular regions and locally. Partnerships are required at many different levels, among different sectors in government and between countries.

In fact, poor nutrition represents a ticking time bomb. The result of long-term ingestion of poor-quality food causes the immunity in the human body to weaken, all processes take place very slowly, and chronic diseases intensify, leading eventually to a risk factor that provokes a multitude of diseases. As per WHO estimates, 600 million people - almost one in ten in the world - fall ill and 420,000 die every year after consuming contaminated food. Unsafe food that contains pathogenic bacteria, viruses, parasites or harmful chemicals causes more than 200 diseases, from diarrhea to cancer. Food additives, pesticides, veterinary drugs (antibiotics) are widely used and can act as indirect contaminants in food. (Painter, 2013)

It is the right of all consumers to safe, healthy and nutritious food nutritious foodstuffs. Consumers represent the driving force for change. They must be enabled and empowered to make good and healthy choices in their own diets and promote sustainable food systems for the sake of the planet. In view of the complex nature of food security, consumers need easy access to up-to-date, understandable and reliable information on the food and disease risks associated with their food choices. Unsafe food and unhealthy diets lead to an increased burden of disease around the world.



References

1. Baker G. A. Consumer Preferences for Food Safety Attributes in Fresh Apples: Market segments, consumer characteristics, and marketing opportunities // Journal of Agricultural and Resource Economics, 1999
2. Blackwell R. D., Miniard P. W. and Engel J. F., Consumer Behavior, 9th ed. Fort Worth, TX: Harcou, 2001.
3. Diet, nutrition and the prevention of chronic diseases. Report of a joint WHO/FAO expert consultation. Geneva, World Health Organization, 2003
4. Gruere P., Carter C. A., Farzin Y. H. What labelling policy for consumer choice? The case of genetically modified food in Canada and Europe // The Canadian Journal of Economics, 2008
5. Klerck D., Sweeney J. C. The Effect of Knowledge Types on Consumer-Perceived Risk and Adoption of Genetically Modified Foods // Psychology & Marketing, 2007
6. Painter, J. A. (2013). Attribution of foodborne illnesses, hospitalizations, and deaths to food commodities by using outbreak data, United States, 1998–2008. Emerging Infectious Diseases
7. Shepherd R., Magnusson M. and Sjöden Per-Olow Determinants of Consumer Behavior Related to Organic Foods, 2005
8. The “Five keys to safer food” manual. Geneva, World Health Organization, 2006
9. WHO global strategy for food safety: safer food for better health. Geneva, World Health Organization, 2002
10. W.w.w.fao.org/world-food-safety-day
11. W.w.w.who.int/world-food safety day

TƏHLÜKƏSİZ VƏ SAĞLAM QIDA MƏHSULLARININ DAVAMLİ TƏDARÜKÜNÜN TƏMİN EDİLMƏSİ

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Xülasə

Tədqiqatın məqsədi – Son illərdə keyfiyyətli qida məhsulları ilə təminat aktual problemə çevrilib. Bu araşdırmanın məqsədi qida məhsullarının təhlükəsizliyinin təmin edilməsinə töhfə vermək və əhəlinin təhlükəsiz və sağlam qida məhsulları ilə davamlı təmin edilməsidir.

Tədqiqatın metodologiyası – Bu araşdırma iqlimdə və qlobal istehsalda istehlakçılar üçün mənfi nəticələrə səbəb olan dəyişikliklər nəzərdən keçirilir.

Tədqiqatın tətbiqi əhəmiyyəti – Qida məhsullarının keyfiyyətinin artırılması məqsədilə istehsalçılar müvafiq metodlardan istifadə etməlidirlər.

Tədqiqatın nəticələri – Araşdırmaya görə, keyfiyyətsiz məhsullardan istifadənin nəticəsində insanın səhhətinin pisləşməsinə, immunitetinin zəifləməsinə, xroniki xəstəliklərin ağırlaşmasına gətirib çıxarır ki, bu isə bir çox xəstəliklərin yaranmasına səbəb olan risk faktorudur.

Tədqiqatın elmi yeniliyi - Keyfiyyətsiz qida məhsulları məsələsinin həllinə dövlət səviyyəsində qida istehsalına nəzarətin gücləndirilməsi, istehsal proseslərinin avtomatlaşdırılması və robotlaşdırılmasının tətbiqi ilə yanaşılmalıdır.

Açar sözlər – qida məhsulları, kontaminantlar, qida təhlükəsizliyi, qidalanma, sağlam qida



**УСТОЙЧИВОЕ СНАБЖЕНИЕ БЕЗОПАСНЫМИ И ЗДОРОВЫМИ
ПРОДУКТАМИ ПИТАНИЯ**

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РЕЗЮМЕ

Цель исследования – За последние годы обеспечение качественными продуктами питания становится все более актуальной проблемой. Целью данного исследования является стремление внести реальный вклад в обеспечение безопасности пищевых продуктов и устойчивое снабжение населения безопасными и здоровыми продуктами питания.

Методология исследования – В рамках данного исследования рассматриваются изменения, происходящие в климате и в мировом производстве, приводящие к негативным последствиям для потребителей.

Важность исследовательского приложения – В целях повышения качества продуктов питания производителям необходимо применять соответствующие методы.

Результаты исследования – По данным исследования, последствием употребления некачественной продукции приводит к тому, что у человека ухудшается здоровье, ослабевает иммунитет, обостряются хронические заболевания, что является фактором риска, провоцирующим множество заболеваний.

Научная новизна исследования - К решению задачи некачественных продуктов питания необходимо подходить на государственном уровне путем усиления контроля над производством продуктов питания и внедрения автоматизации и роботизации производственных процессов.

Ключевые слова: продукты питания, контаминанты, безопасность продуктов питания, питание, здоровая еда