

COMPARATIVE DATA ON THE CONTENT OF HARMFUL IMPURITIES IN HONEY ON THE EXAMPLE OF UKRAINIAN STANDARDS AND FOREIGN DOCUMENTS

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Abstract

Over the past thirty years, international requirements for the quality of honey have significantly increased due to the contamination of honey with chemical substances, namely with regard to the residual amount of pesticides, antibiotics and heavy metals in it. The purpose of this study was to study the regulatory documents of Ukraine, the European Union and other countries, in particular the USA and Canada, with the aim of bringing the Ukrainian honey standard into compliance.

The data of the state standard of Ukraine for honey DSTU 4497:2005 [38], EU Directive 2001/110/EC [40], and normative documents of the USA and Canada were used as research material. An analysis of the degree of contamination of honey with medicinal preparations was carried out. It is proposed to make changes to the new version of the normative document of Ukraine on honey on the maximum permissible amount of medicinal products, based on the regulatory documents of the European Union and the USA and Canada. When revising the current standard of Ukraine for honey, it is recommended to introduce the following norms of the permissible level of pesticides, no more than mg/kg: hexachloran - 0.5; coumaphos - 0.1; amitraz - 0.2; tau-flaminate - 0.02. Regarding the maximum permissible levels of the content of antibiotics and other medicinal products, determine their amount within the following limits, no more than mg/kg: oxytetracycline - 0.1; tetracycline - 0.1; nitrofurantoin - 0.6; chloramphenicol - 0.3; and streptomycin - 0.1. A study was conducted comparing the permissible content of such harmful substances in honey as lead, cadmium and arsenic according to various documents among Ukraine, the EU and the USA. It is recommended in the new edition of the standard of Ukraine for honey to reduce the maximum permissible level of lead content in it by 2 times and to set this indicator at the level of 0.5 mg/kg.

The benefit from this study is to obtain a updated and harmonized with EU and USA normative document of Ukraine on honey, based on the data of indicators of such documents from other countries. The study's practical significance is the use of the obtained conclusions and developments as recommendations for improving the regulatory document of Ukraine on honey.

Key words: Honey, Harmful impurities, Normative document, Pesticides, Antibiotics, Medicinal products.