

CONTAMINANTS IN ORGANIC ANIMAL FOOD PRODUCTS (ЗАБРУДНЮВАЧІ ОРГАНІЧНИХ ХАРЧОВИХ ПРОДУКТІВ)

Бажанова Н.Д., гр. ПТ-19

Наукові керівники: канд. техн. наук, доц. **А.О. Колесник**,
доц. **О.О. Манусенкова**

Харківський державний університет харчування та торгівлі

Organic and conventional animal products may include residues of veterinary drugs and environmental contaminant. Food contaminants can cause consumer illness such as allergy, immunosuppression, cancer, teratogenicity, mutagenicity and genotoxicity. Therefore, their control is an important issue in terms of public health.

Chemical substances have been used excessively in order to increase the agricultural productivity since the 1940s. Applications initially led to an apparent increase in yield. However, in the later process, effectiveness of these substances decreased due to the development of resistance against chemicals, particularly used in combating agricultural pests, thus this situation resulted in either excessive use of them to obtain better response or development of new drugs with high expenses. The current approach is more comprehensive, which ensure the dissemination of sustainable practices in every production area in order to leave a healthier world for future generations. Organic farming, emerged in this context, is accepted as the farming not allowing the use of any of the substances/applications such as growth promoters, antibiotics, genetically modified organisms and irradiation, which are considered to be harmful to human health, and providing safer foods concerning nitrates, pesticides and harmful elements (heavy metals, particularly cadmium) and rich in phenolic compounds.

Organic farming refers to breeding systems that do not use chemical inputs in which the priority is given to animal welfare and quality of healthy products. However, difficulties in the treatment of animal diseases due to failure in achieving the standards of organic farming has led to insufficient development of organic farming. Although milk is the most commonly produced products among the organic animal products, its production amount is still considerably lower than that produced by the conventional method. The organic meat production has been recently introduced; therefore, it is difficult to find certified breeders. Organic animal product quality varies depending on various factors such as animal species and diet types. However, unlike the conventional farming, lack of the use of protective products in organic products can lead to early deterioration of a product, to the risk for mold formation and to the emergence of harmful pathogens.