

Research Cooperation between of Ukraine in Terms of Food Chain Safety Control in the Frame of MICRORISK Project

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Abstract : The MICRORISK project (Research cooperation in assessment of microbiological hazard and risk in the food chain) was funded by the European Commission under the FP7 PEOPLE 2012 IRSES call within the International Research Staff Exchange Scheme of Marie Curie Action and realized during years from 2014 to 2015. The main aim of the project was to establish a cooperation between the European Union (EU) and the third State in the area important from the public health point of view. The following organizations have been engaged in the activity: National Veterinary Research Institute (NVRI) in Pulawy, Poland (coordinator), French Agency for Food, Environmental and Occupational Health & Safety (ANSES) in Maisons Alfort, France, National Scientific Center Institute of Experimental and Clinical Veterinary Medicine (NSC IECVM), Kharkov and State Scientific and Research Institute of Laboratory Diagnostics and Veterinary and Sanitary Expertise (SSRILDVSE) Kijev Ukraine. The results of the project showed that Ukraine used microbiological criteria in accordance with Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs. Compliance concerns both the criteria applicable at the stage of food safety (retail trade), as well as evaluation criteria and process hygiene in food production. In this case, the Ukrainian legislation also provides application of the criteria that do not have counterparts in the food law of the European Union, and are based on the provisions of Ukrainian law. Partial coherence of the Ukrainian and EU legal requirements in terms of microbiological criteria for food and feed concerns microbiological parameters such as total plate count, coliforms, coagulase-positive *Staphylococcus* spp., including *S. aureus*. Analysis of laboratory methods used for microbiological hazards control in food production chain has shown that most methods used in the EU are well-known by Ukrainian partners, and many of them are routinely applied as the only standards in the laboratory practice or simultaneously used with Ukrainian methods. The area without any legislation, where the EU regulation and analytical methods should be implemented is the area of Shiga toxin producing *E. coli*, including *E. coli* O157 and staphylococcal enterotoxin detection. During the project, the analysis of the existing Ukrainian and EU data concerning the prevalence of the most important food-borne pathogens on different stages of food production chain was performed. Particularly, prevalence of *Salmonella* spp., *Campylobacter* spp., *L. monocytogenes* as well as clostridia was examined. The analysis showed that poultry meat still appears to be the most important food-borne source of *Campylobacter* and *Salmonella* in the UE. On the other hand, *L. monocytogenes* were seldom detected above the legal safety limit (100 cfu/g) among the EU countries. Moreover, the analysis revealed the lack of comprehensive data regarding the prevalence of the most important food-borne pathogens in Ukraine. The results of the MICRORISK project are networking activities among researches originations participating in the tasks will help with a better recognition of each other regarding very important, from the public health point of view areas such as microbiological hazards in the food production chain and finally will help to improve food quality and safety for consumers.

Keywords : cooperation, European Union, food chain safety, food law, microbiological risk, Microrisk, Poland, Ukraine

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