ABSTRACT

MICROBIOLOGICAL QUALITY CONTROL OF FEED FOR FARM ANIMALS IN UKRAINE, 2021

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In animal feed productions in conditions of nowadays competition in the markets, a successful prospect is possible only if the animal feed production would meet the needs of customers. The quality of feed have to meet the requirements of current regulations: standards, specifications, regulations, directives, etc. [1]. A lot of countries are enacting laws that allow uniform standards to be set and feed to be verified. The quality and safety of feed further affects the quality of agricultural products of animal origin, which in turn directly affects the health of consumers of these products [2]. Safety indicators are important, according to microbiological criteria. With a view to ensuring animals with quality feed in Ukraine, Order 131 of 19.03.2012, «On approval of the list of maximum permissible levels of undesirable substances in feed and feed materials for animals» with changes number 550 from 11.10.2017 [3].

Objective
Analysis of discrepancies identified in microbiological studies of feed for farm animals produced by Ukrainian enterprises, export and import in 2021.

Methods
Analysis of data on statistical reporting of microbiological studies of animal feed conducted by laboratories of the State Consumer Service and the State Research Institute of Laboratory Diagnostics and Veterinary Sanitary Examination in 2021.

Results
In 2021 the laboratories of the State Consumer Service and State Scientific and Research Institute of Laboratory Diagnostics and Veterinary and Sanitary Expertise
in the analysis of feed produced at the enterprises of Ukraine, export and import feed a total of 17,546 feed samples were studied and 51,955 studies were conducted on various indicators. Discrepancies were found on the following microbiological indicators: enteropathogenic strains of Escherichia coli – 34 studies, which accounted for 28% of all studies of feed; entrobacteria – 32 studies, which amounted to 24.6%; mushrooms – 14, which is 11.6%; salmonella was detected in 12 cases – 9.9%; toxin-forming anaerobes 11 cases - 9.1%; total bacterial contamination exceeded in 10 cases - 8.3%; yeast was detected in 6 studies - 5% and Proteus in 2 studies - 1.7%. The overall rate of non-compliant feed was 121 studies and accounted for 0.23% of all feed studies.

Conclusions
1. Enteropathogenic strains of Escherichia coli and enterobacteria were recognized as the main indicators of discrepancies in the research of feed for farm animals in Ukraine in 2021: 28% and 24.7%.
2. In order to prevent deviations in the quality of feed, it is necessary to ensure the functioning of the system of production, storage and transportation in such a way as to minimize or prevent the entry of pathogenic microorganisms.
3. Microbiological feed quality control should remain systematic along with chemical, toxicological and radiological controls.

References: