

RESEARCH REGARDING THE QUALITATIVE ASSESSMENT OF THE CONTAMINATION WITH ANTIBIOTIC RESIDUES FROM THE MILK SOLD IN THE AGRO-FOOD MARKETS AND IN THE COMMERCIAL NETWORK IN IAȘI

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Abstract

The marketing of antibiotics directly to animal owners and the intensification in recent years of the use of these drugs without the recommendation of a veterinarian has led to the increasingly frequent presence of antibiotic residues in milk that is intended either for human consumption or for obtaining dairy products. The use by processors of milk with antibiotic residues is difficult to achieve. According to European Union food safety legislation, milk harvested from cows treated with antibiotics must be collected separately, and isolated. It cannot be given for processing or human consumption. Applying thermal treatment, especially pasteurization, to milk with antibiotic residues above the maximum allowed limit has insignificant effects, processors have been convinced of this over the years. The interest of the study for the detection of antibiotic residues in milk is very current, even if the waiting period after treating the cows with antibiotics is recommended, often this period is not respected, the consideration being the significant economic losses. The rapid strip test method was done with strip tests AuroFlow, which are designed for the simultaneous detection of beta-lactams and tetracyclines. The working samples were represented by processed milk sold in supermarkets and raw milk sold in agro-food markets in Iasi. The distribution of processed milk samples was 1 positive sample each in 2 of the supermarkets where the samples were collected, these being in the percentage of 4%. UHT-treated milk in all 5 supermarkets did not show any positive tests. On the other hand, the sale of raw milk in the agro-food markets showed a percentage of 20% positive samples, out of several 25 samples examined, the rate is much higher compared to processed milk.

Keywords: raw milk, processed milk, antibiotic residues, qualitative assessment