

❖ **GLOBAL TRENDS AND CHALLENGES IN ANIMAL HUSBANDRY AND VETERINARY MEDICINE**

**Impact of pesticide residues in raw milk**

**Susana MODVALA**

*Technical University of Moldova, Chisinau, Republic of Moldova*

**Abstract**

Foreign substances, usually with a toxic effect, may be present in the contents of milk, and therefore in dairy products, which when added intentionally constitute adulteration of milk. Toxic substances that are accidentally introduced into milk and change its properties and composition are considered to be pollutants, or simply pollutants.

Organochlorine pesticides, in particular, enter the cows' bodies through the consumption of concentrated feed (cereals, sprouts) and roots contaminated with such substances. As a rule, they are deposited as such in the fat tissue and milk fat. For this reason, skimmed milk and buttermilk will contain small amounts of pesticides.

The assessment of exposure of milk to pesticide residues depends on the presence of the pesticide residue in food and the availability/consumption rate of that food, which is compared with health-based toxic reference values such as the acceptable daily intake (ADI) and reference dose (RfD).

Following the study and assessment of the physico-chemical indices of milk samples, it was found that they meet the current requirements laid down in GOST 3625 - Milk and milk products. No pesticide residues such as aldrin, endosulfan, dieldrin, heptachlor, HCH, DDT were detected in any milk sample, which is probably due to the ban by the RM government on their use in the protection of grassland and agricultural crops for the last years.

The most effective way to minimize the action of various pesticide residues is the introduction of primary awareness-raising measures aimed at reducing environmental pollution with chemical compounds, as well as the introduction of environmentally friendly food processing technologies.

**Keywords:** Milk, Residues, Pesticides, Sample, Food.