

## **Milk and Meat Hygiene and Public Health 3(2-1)**

### **Theory**

Milk hygiene: scope, importance. Hygienic milk production and handling practices. Preservation of milk: transportation, storage. Contamination: types, sources, effects. Milk defects: off flavors, milk-borne diseases. Adulteration in milk: current status, control methods. HACCP for hygienic milk production.

Meat hygiene: meat sanitation scope, importance. Abattoirs: pre-requisites. Anti-mortem inspection: disease symptoms. Slaughtering and meat handling: hygienic practices and principles, rules for meat industry, red meat hygiene. Waste management. Quality control. Meat-borne diseases. HACCP for hygienic meat production.

### **Practical**

Sampling of milk. Physical examination of milk for general appearance, consistency, flavor and aroma. Testing of milk: clot on boiling, alcohol precipitate test, pH value, acidity and specific gravity. Total viable count in milk. Methylene blue reduction test. Somatic cell count. Detection of adulterants in milk. Detection of preservatives in milk. Visit to dairy plant/milk chilling plant.

Sampling of meat. Visual examination of carcass. Post-mortem examination. Microbiological examination of meat. Visit to slaughterhouse/ meat processing industries.

### **Books Recommended**

1. Kurwijila, L.R. 2006. Hygienic milk handling, processing and marketing: reference guide for training and certification of small-scale milk traders in Eastern Africa. International Livestock Research Institute, Nairobi, Kenya.
2. MIF (Milk Industry Foundation of USA). 2005. Analysis of milk and its products: a lab manual. Biotech Books, New Delhi, India.
3. Spreer, E. 2005. Milk and dairy products technology. CRC Press, Taylor & Francis Group, Boca Raton, Florida, USA.
4. Gracey, J.F., Collins, D.S. and Huey, R.J. 1999. Meat hygiene. Baillière Tindall, London, UK.

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