Main microorganisms causing classical food poisoning in Mongolia

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In early 1990s Mongolia moved from centrally planned economic system to market based economy. During the transition period where major economic and political reforms took place privatisation of livestock was a natural step and major changes happened in selling and supplying food products.

The main food product of Mongol people is meat and meat products, primary products being beef and lamb. Although ecologically it has certain advantages, the logistics through which meat products are delivered are not considered to be conformity with regulations and standards provided by the industry resulting in highly risky and poisonous meat products.

As we have quite a few meat processing and supplier companies in centralised cities such as Ulan Bator, the discussion will about bacteria which are originated from unhealthy conditions, what can we do is to solve these issues and exchange and share ideas.

Mongolia is an exporter country of approximately 40 livestock originated products. As a member of World Trade Organization bringing quality and safety of the products to world highest standards is one of the main issues we are facing today.

Mongolia is one of the few countries which have the opportunity to produce ecologically safe and hygienic products. In order to do that we need to maintain quality and safety at all levels of production starting from supplier to end-user customers and need to consider following factors:

1. External pollution
2. Bacteria pollution
3. Biological threats
4. Additional toxic elements found in livestock
5. Lack of quality food

Above factors are closely linked to legal environment of safety of products, policies in related to safety of products, financial capability, scientific development, levels of education in the country and culture.

As at year of 2004 in Mongolia we have around 14,331 private and government owned companies who conduct business in food production and around 100 companies specialising in production of meat products.

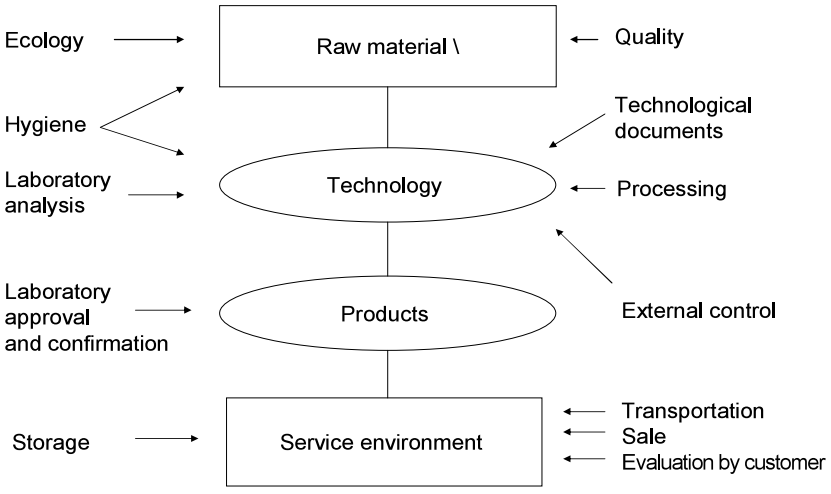

Figure. 1

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According to the survey by former state hygiene and epidemiological control agency in 2002, it has been informed that 25.5 % of meat and meat products, 10.6 % of flour and bakery products, 22.87% of milk and dairy products, 7.7% of fruits, 19.4% of semiprocessed products have been contaminated with microorganisms above the acceptable level.

Due to low safety and hygiene levels of production and storing of meat products; out of total meat sold in food markets 57.8% have not developed protective skin and 8.98% were contanimated by pathogenic bacteria.

Bacteria family Enterobactericeae were detected in meat products in 27.8% and out of which 3.3% is Salmonella, 1.8% is E.coli, 1.2% is Proteus, 2.2% is Pseudomonas and consequently percentage of pathogenic bacteria is 6.2%.

Have been observed cases of food originated diseases, during 1999-2002 years out of 10,000 people 0.1%-0.2% infected by E.coli, 1%-3% infected by Salmonella, 1.8%-6.2% infected by brucellosis and there were few cases of anthrax infection and food borne diseases accounted for 30% of all communicable diseases.

Absence of any pathogenic bacteria in fresh meat, slaughtered in accordance with technological requirements in industrial condition proves that the majority of microbial contaminations of meat depends on exogenous factors.

There is a potential public health problem where people slaughter privately for human consumption. Free market for animals and their products by private traders is common in this country. The lack of knowledge of private slaughtered animals and inefficient state compensation for slaughtered animals greatly support the increase of the risks of zoonotic disease such as anthrax and brucellosis.

Meat and meat products poisoning by microorganisms has shown high probability of infectious diseases among the population and alerts us to put an immediate action plan in place and take necessary measures to limit the risk of outbreak of infectious diseases. The following actions are needed to be implemented in the near future:

- Train specialists in learning new methodologies to analyse safety and hygiene of food products.
- Organize and create a microbiologic laboratory with necessary equipments.
- Promote and increase awareness among the population about the healthcare, hygiene and safety of meat products by cooperating with government and non-government agencies.