

Dept. of Vet .Public Health

//MEAT HYGIENE Course

5th stage:

Meat hygiene :is the science that related with production meat that fit for human consumption from the origin of animals to the shop that human being and its very important to the public health

Meat: it is term used to describe edible portion of animal tissue

Meat are often classified by type of animal from which they are taken :

1. Red meat refers to meat taken from mammals
2. White meat refers to meat from fowl
3. Sea food refers to meat from fish and shell fish
4. Game food refers to meat taken from animal that are not commonly domesticated

The hygiene's proportion in meat that fit for human consumption:

- ✓ Meat must be in the natural without of any abnormal odour or taste
- ✓ Meat must be never contains any of pathogenic micro-organism, parasite and toxins or any agents of zoonotic diseases which may be transported from meat to the human
- ✓ meat must be contain very low number from non pathogenic micro-organism

Some terms that used in meat hygiene:-

❖ Carcass:-

The complete body of the animal after slaughter and complete bleeding then removal internal organs and the end of the limbs of the knee joint, hock joint, head, tail, udder and skin.

❖ offal:-

It's the soft meat that connected with carcass ,this mean a parts of carcass such as blood , brain ,heart , kidney , liver , spleen , thymus ,tongue , but exclude meat flesh , bone and bone marrow.

❖ Viscera:-

It's the offal that present in the abdominal, thorax , pelvic cavities such as esophagus and trachea.

❖ **Abattoir:** abattoir a building which is licensed for the slaughter of animals and initial preparation of carcasses for human consumption, also commonly called a slaughterhouse.

❖ **lairage:** Area of an abattoir where animals are held (rested) before slaughter.

Usually animal travel long distances to abattoir and if not rested properly the quality of meat is adversely affected.

Lairage should be provided with abundant water and feed and should have adequate facilities for anti mortem inspection and should be equipped with all facilities to feel animal comfortable and for this it should be protected from heat ,cold, rain.

***Ante-Mortem**:- Before death (slaughter). In contrast to post-mortem.

***Slaughter hall**:- The part of an abattoir in which the act of slaughtering of animals takes place.

***Slaughter**:- The killing of animals for the preparation of meat for human consumption normally carried out at an abattoir.

***Stunning**:- Refers to methods used to render an animal insensible at slaughter.

***Exsanguination**:- The technique used to drain the blood from the carcass of an animal at slaughter.

Hide: the skin of cattle as removed at abattoir.

***Casualty Animal :(emergency slaughter.)**-

an animal slaughtered prematurely for meat as a result of an accident, injury or wound. This is also known as emergency slaughter.

***Condemnation**:- (Condemned meat) meat considered to be unsafe for human consumption, as identified and rejected by veterinary surgeons or meat inspectors at the abattoir.

***Glycolysis**: In the field of meat science and technology, the term glycolysis refers to the *anaerobic metabolic* process

converting glucose from glycogen to lactic acid, (also called anaerobic glycolysis).

***Lactic Acid:-** (lactate) is the acid product of glycogen breakdown (glycolysis).

***pH:** Is a value used to represent acidity or alkalinity of the muscle. The pH of muscle in the live animal is approximately 7.3 Muscle pH declines (becomes more acidic) rapidly following slaughter, as a result of the accumulation of lactic acid.

***Post-Mortem Acidification:-** Describes the way the carcass pH changes from neutral (7.3) before slaughter, to acidic (approx. 5.5) within hours of slaughter.

Post-Mortem Proteolysis: is the breakdown of the myofibrillar proteins of muscle in the carcass caused by proteolytic enzyme

Some of abnormalities which are checked on antimortem examination include:

- Abnormalities in respiration
- Abnormalities in behavior
- Abnormalities in posture
- Abnormalities in gait
- Abnormalities in odour and colour
- Abnormalities discharges or protrusions from body opening