

9-11 October 2023

University of Basra
College of Veterinary Medicine
Dept. of Public Health/ Meat Hygiene Division Meat
Hygiene Course/ Fifth Year
2023-2024

Practical Lecture:
Group (A, B)

1st Semester

Ante-mortem Inspection

Pre-Slaughter Rest:

1. When animals are rested to improve the meat quality and reduce the chances of contamination with gastrointestinal bacteria.
2. The fatigue could have a negative influence on the protective functions of the animals (low immunity) allowing rapid penetration of the microorganisms especially E Coli.
3. Resting for 48 hours brings gradual freeing of muscles and other organs from microorganisms, improve bleeding and keep quality of meat.
4. Helps in preserving the glycogen level in the muscles during undergoes anaerobic respiration and results in production of lactic acids which has mild preservation effect on meat quality.
5. Under stressed conditions muscles do not receive enough oxygen which leads to higher lactic acid production often associated with comprised quality in terms of color, texture and water holding capacity.

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Some Very Important Reasons for Performing Ante Mortem Examination (Screening):

1. Screen all animals destined to slaughter. The inspection must take place within 24 hours of arrival at the slaughterhouse and less than 24 hours before slaughter.
2. Identify animals/flocks showing a disease or condition that could render the carcass unfit for human consumption. No evidence on post-mortem lesions (e.g., A rabies animal have characteristic signs on ante mortem but no lesions on regular post-mortem inspection).
3. Identify animals/flocks which are a threat to the health of personnel handling the carcass (e.g. Ringworm).
4. Identify sick animals and those treated with antibiotics, chemotherapeutic agents, Insecticides and pesticides.
5. Identify animals/flocks which are suspected of having a reportable disease or a foreign animal disease (e.g., Avian Influenza, Tuberculosis and Foot and Mouth disease).
6. Identify suspect animals/flocks that require segregation and separate slaughter.
7. Make a disposition regarding the suitability of animals for slaughter so that dead or dying animals do not enter the slaughter floor.
8. Identify animals/flocks requiring special handling for animal welfare reasons (e.g., Animals with fractures).

Both sides of an animal should be examined at rest and in motion. Ante-mortem examination. Should be done within 24 hours of slaughter and repeated if slaughter has been delayed over a Day. Ante-mortem inspection should be carried out in adequate lighting where the animals can be observed both collectively and individually at rest and motion.

Recorded And Reported on an A/M Inspection Card:

1. Owner's name.
2. The number of animals in the lot and arrival time.
3. Species and sex of the animal.
4. The time and date of ante-mortem inspection.
5. Clinical signs and body temperature if relevant.
6. Reason the animal was held.
7. Signature of inspector.

Some of The Abnormalities:

1. Abnormalities in respiration.
2. Abnormalities in behavior.
3. Abnormalities in gait.
4. Abnormalities in posture.
5. Abnormalities in structure and conformation.
6. Abnormal discharges or protrusions from body openings.
7. Abnormal color.
8. Abnormal odor.

Abnormalities In Behavior:

1. May stand with the abdomen tucked in.
2. May lie with its head turned and along its side.
3. May stand with its feet stretched out in front.
4. May stand with its head and neck extended.
5. May be unable to rise.
6. Walking in circles or show an abnormal gait or posture.
7. Pushing its head against a wall.
8. An animal that is acting very aggressively.
9. Showing a dull and anxious expression in the eyes.

Abnormal Discharges or Protrusions from The Body:

- A. Discharges from the nose, excessive saliva from the mouth, after birth.
- B. Protruding from the vulva, intestine.
- C. Protruding from the rectum (prolapsed rectum) or uterus.
- D. Protruding from the vagina (prolapsed uterus).
- E. Growths on the eye and bloody diarrhea.

A medicinal odor, stinkweed odor or an acetone odor of ketosis may be observed.

Abnormalities in appearance (conformation):

1. Swelling of the skin (abscesses).
2. Swelling around the head and eyes and edema.
3. Enlarged joints or bones.
4. Swelling of the umbilicus.
5. Udder greatly enlarged.
6. Abdomen bloated.
7. Swollen legs.
8. Enlarged jaws ("lumpy jaw").
9. Lower abdomen pendulous (hanging down).
10. Swelling of subcutaneous lymph nodes.
11. Dermatitis or other skin lesions.

Bleeding of the animal (exsanguination):

Cattle

Bleeding should continue for 5–6 minutes. The average amount of blood obtained from cattle is about 13.5 liters.

Sheep

Bleeding should last for about 5 minutes and the amount of blood obtained is about 2 liters.

Common causes of emergency slaughter:

1. Fractures of limbs or pelvis.
2. Extensive bruising or injuries, e.g., accidents and trampling during transit.
3. Respiratory distress, e.g., in choke or tympanites.
4. Prolonged recumbency, e.g., milk fever.
5. Difficult parturition.
6. Partial asphyxiation.
7. Heat stroke.

Judgment Decisions at Ante-Mortem Inspection:

1. Fit for slaughter.
2. Unfit for slaughter and the animal is condemned at ante-mortem.
3. Suspect Animals which fall under 2 categories.
 - (a) slaughter under strict supervision
 - (b) retain for a specified period enabling the symptoms to develop or subside and thereupon take a final decision on slaughter (fit/unfit/slaughter under strict supervision).
4. Pregnant animals or animals having delivered a calf within the last 48 hours are not permitted for slaughter. Animals undergoing treatment or with a recent history of treatment as also experimental animals are not to be slaughtered unless a no objection certificate has been issued by veterinarians.