

Regional Training Course on Abattoir Surveillance for Contagious Bovine Pleuropneumonia (CBPP)

24 – 27 March 2026, Nairobi, Kenya

CBPP

Ante and Post mortem inspection, with emphasis on the lung pathology

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What is an ante-mortem inspection?

- Examination of animals before slaughter.
- Ensures only healthy animals enter the food chain.
- Protects public health and prevents disease spread.
- Must be conducted within 24 hours before

slaughter.



Primary Objective



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Primary Objective

- **Allow slaughter only of healthy animals.**
- **Detect clinical disease.**
- **Express even the slightest suspicion of antibiotic use in the animal.**





Key Ante-Mortem sign for CBPP

- *Deep, painful, suppressed cough.*
- *Fever and respiratory distress.*
- *Elbow abduction.*
- *Reluctance to move.*

Injection of antibiotics must be checked!



CBPP

ANTE-MORTEM INSPECTION

Ante-mortem inspection in suspected CBPP

General Aim:

- 1. Detect clinical signs of CBPP to prevent slaughter of diseased animals and to report immediately (CBPP is a notifiable disease) after, when it is possible, CBPP lab confirmation.**
- 2. Remember to check during PM Inspection for any antibiotic treatments**



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1. History & Epidemiology

- Recent introduction from CBPP endemic regions.
- Coughing or respiratory disease in herd.
- High morbidity, but variable mortality.
- Chronic carriers may persist.





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2. Clinical Signs – Acute Form

Observed during ante-mortem inspection (at rest & in motion):

- **Fever:** up to 41–42 °C (105.8–107.6 °F).
- **Respiratory distress:** rapid, shallow breathing, painful respiration.
- **Cough:** frequent, often suppressed because of pain.
- **Elbow abduction:** animals stand with elbows away from body to ease breathing.
- **Head/neck extended:** to reduce thoracic pain.
- **Nasal discharge:** sometimes mucopurulent.
- **Anorexia & depression.**



UNDERSTANDING NASAL DISCHARGE

Healthy

Nasal Discharge



No discharge

Moderate

Nasal Discharge



Small amount of
discharge from one
or both nostrils

Needs Treatment

Nasal Discharge



A lot of discharge
from one or both
nostrils

**Head/
neck
extended**



Respiratory clinical signs



Respiratory clinical signs



2. Clinical Signs – Subacute/Chronic Form

- Mild fever.
- Occasional cough, more evident during physical activity.
- Progressive weight loss, wasting (emaciation).
- “Stunted” appearance.
- Some animals appear clinically normal but are *latent carriers*.



Poor Body Score condition





Poor Body Score condition





3. Ante-mortem Differential Diagnosis

- Bovine tuberculosis (TB).
- Pasteurellosis others Mycoplasmosis (Shipping fever complex).
- IBR.
- Pericarditis.
- Traumatic reticuloperitonitis.






4. Inspector's Actions

Isolate suspect animals.

- **Do not slaughter for human consumption** until veterinary inspector make an official decision.
- **Collect samples** (blood and nasal swabs) only under veterinary direction.
- **When CBPP is confirmed-Notify veterinary services:**
CBPP is reportable to national authorities and the WOAH.

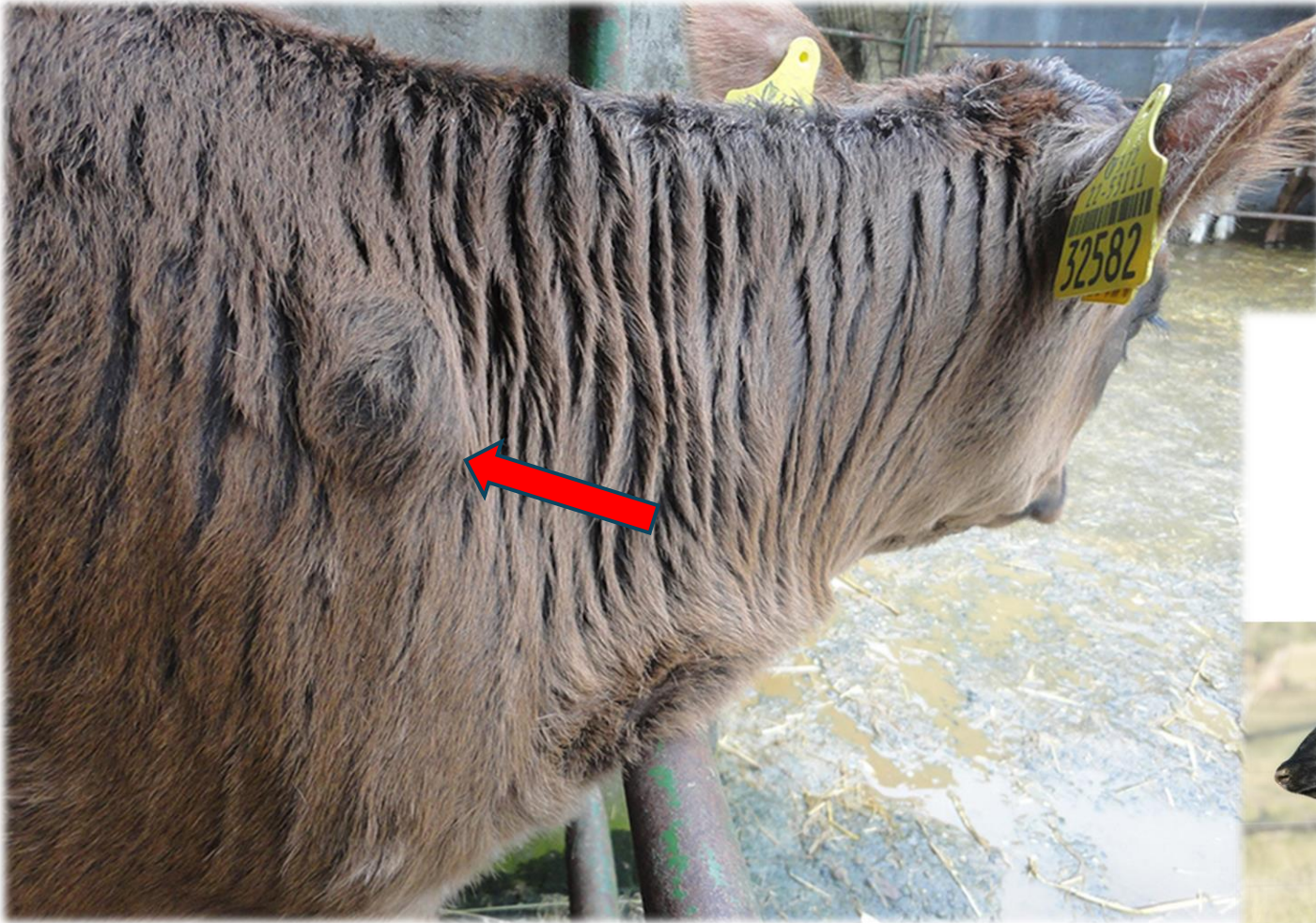


5. Disposition

- **Condemnation:** Animals with clinical CBPP clinical signs and **hight fever** must not enter the food chain.
- **Carcasses** from confirmed CBPP cases and suspected treated with antibiotics are **totally condemned**.
- **Contact animals:**  Slaughtered quickly.

AM Inspection and Antimicrobial Treatments

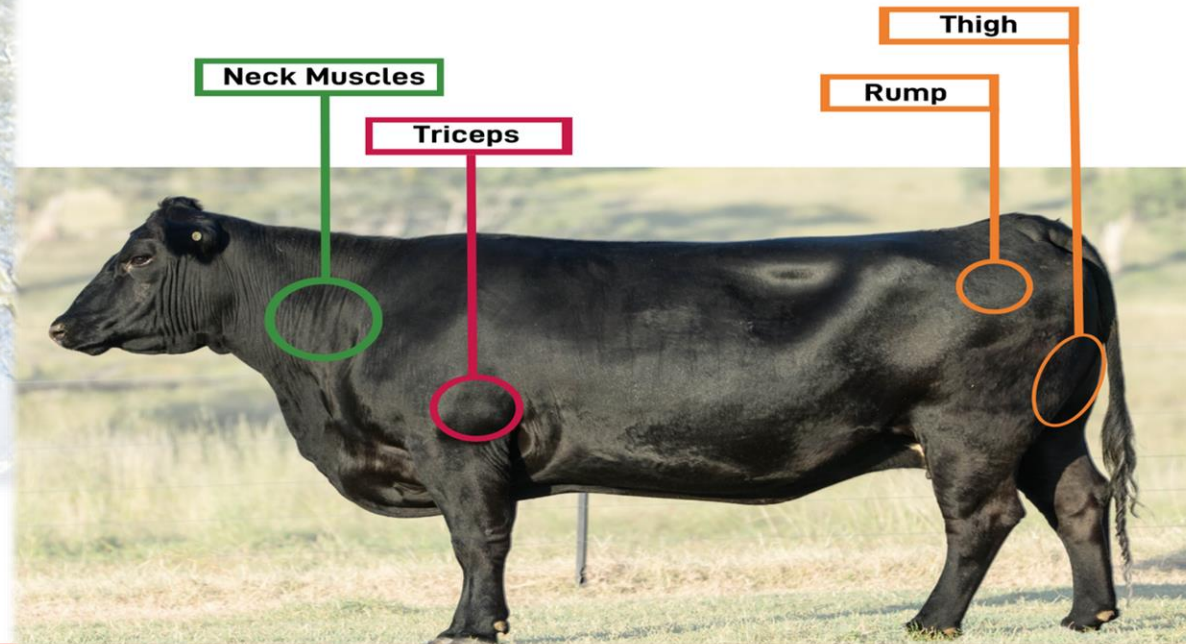
Animals that present during *ante-mortem* visit, nodules at the sites where drugs, such as long-acting antibiotics, are normally injected, should be considered suspected of having been treated and any muscle lesions should be investigated during PM examination



AM Inspection and ATs

Recommended Intramuscular (IM) Injection Sites in Beef Cattle

**Injection sites shown are approximate*





PRACTICAL ANTE-MORTEM INSPECTION CHECKLIST TAILORED FOR CBPP





CBPP

POST MORTEM INSPECTION

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Role and

Importance

- **Post-mortem inspection is a key step in CBPP surveillance.**
- **Provides the most reliable evidence of infection at slaughter.**
- **Detects CBPP lesions in animals without clear clinical signs.**
- **Links ante-mortem findings with, when is possible, laboratory confirmation.**



Role and Importance

Post-mortem inspection is also important in highlighting and recording pathological lesions:

- arising from the administration of parenteral antibiotic formulations
- caused by zoonotic agents



Role and Importance

Post-mortem examination:

- at Slaughterhouses
- at Informal/Bush abattoirs
- during slaughtering for ceremonies such as funerals, weddings, etc.



Role and

But also, we are talking about **CBPP** **Importance**
suspicious lesions found during:

Necropsy performed in the field: in these cases hyperacute or acute pulmonary lesions are expected

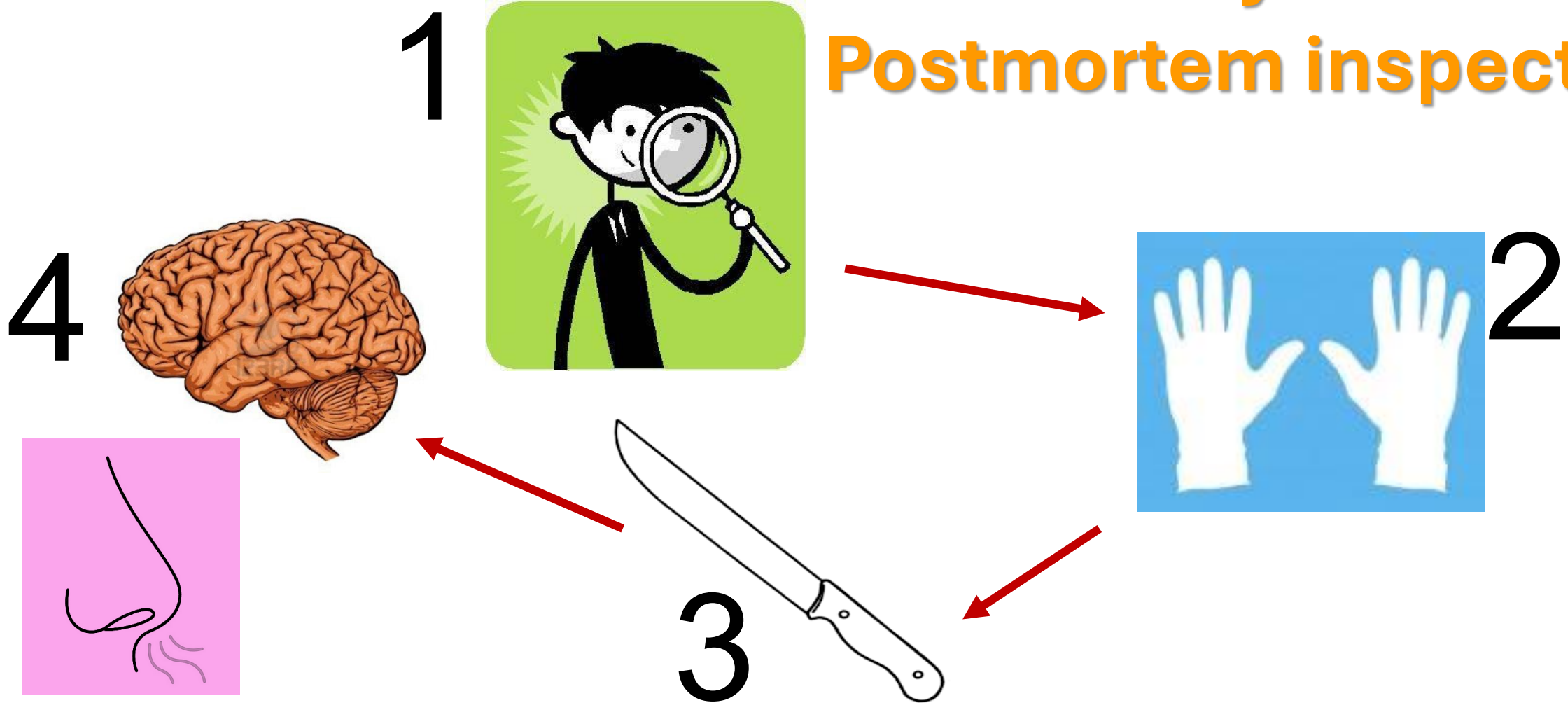


Organisation

The players would be:
Veterinarians and Technicians but,
in my opinion, also,
in Pastoral and/or Unstable areas,
trained Traditional Leaders and Breeders



Thoracic cavity and Lungs; Postmortem inspection





Lung and Chest cavity **Viscera Inspection** *Post mortem* Inspection



PLEURA

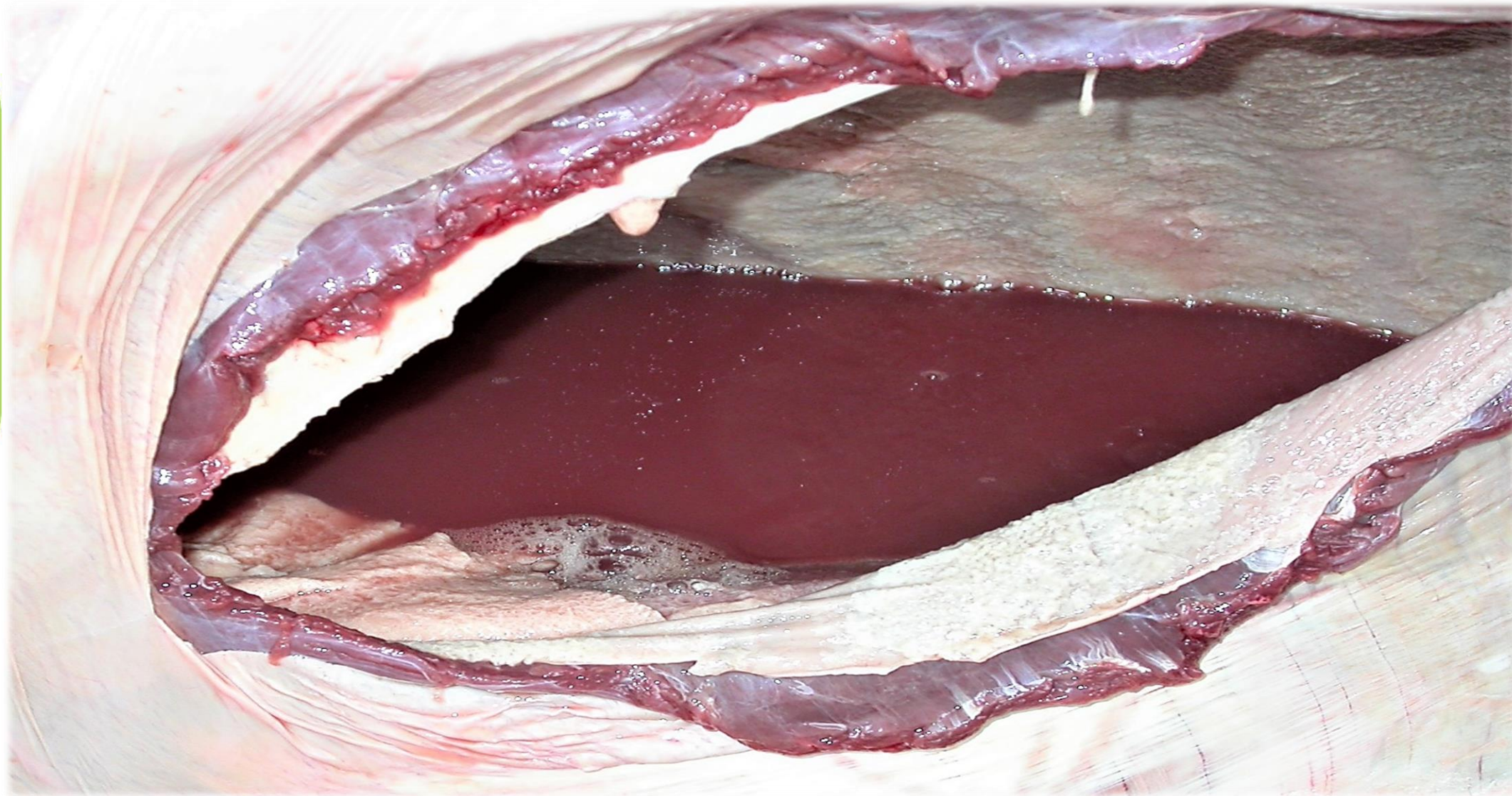
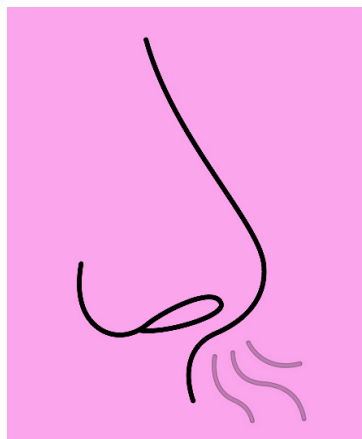
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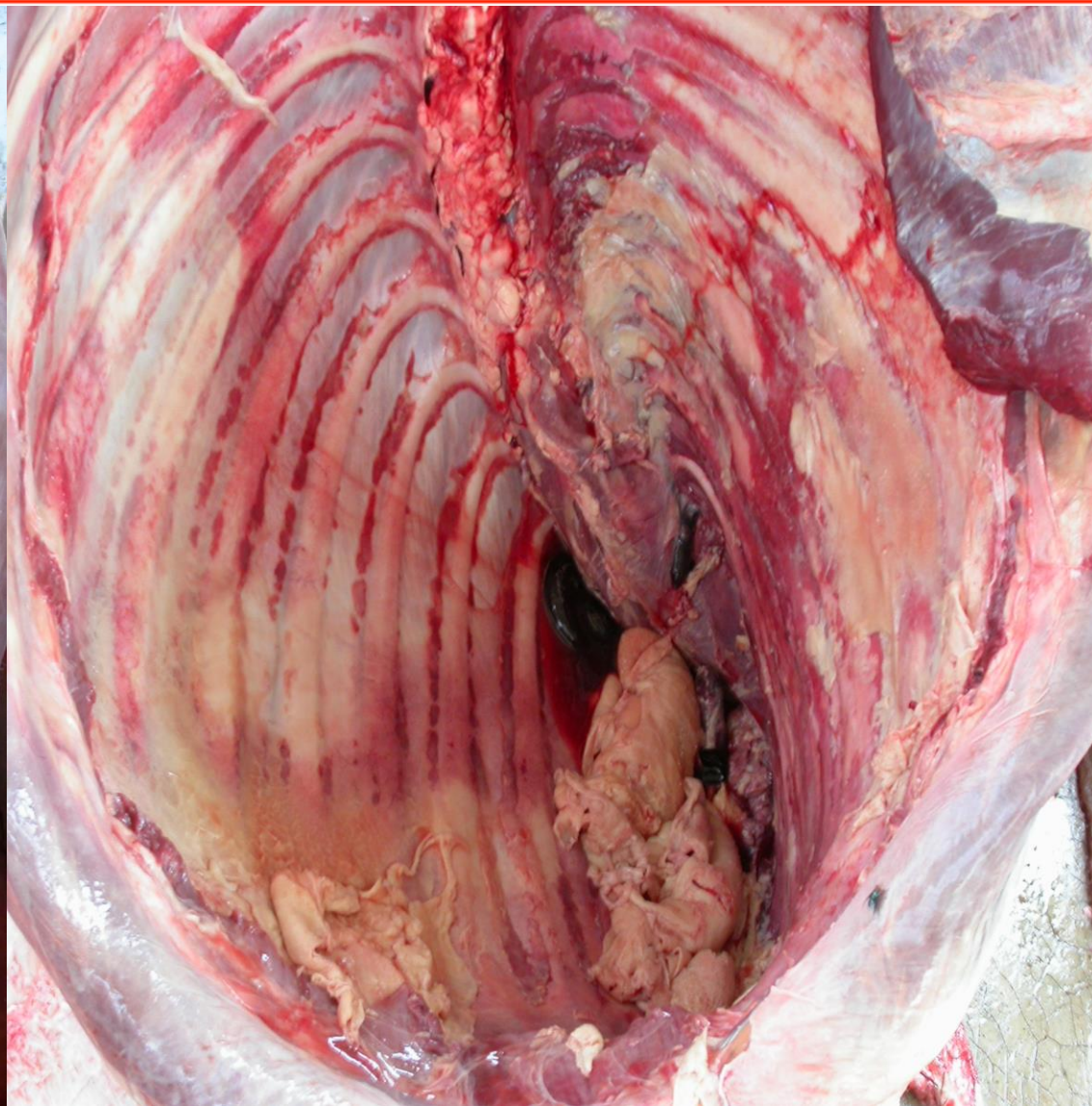
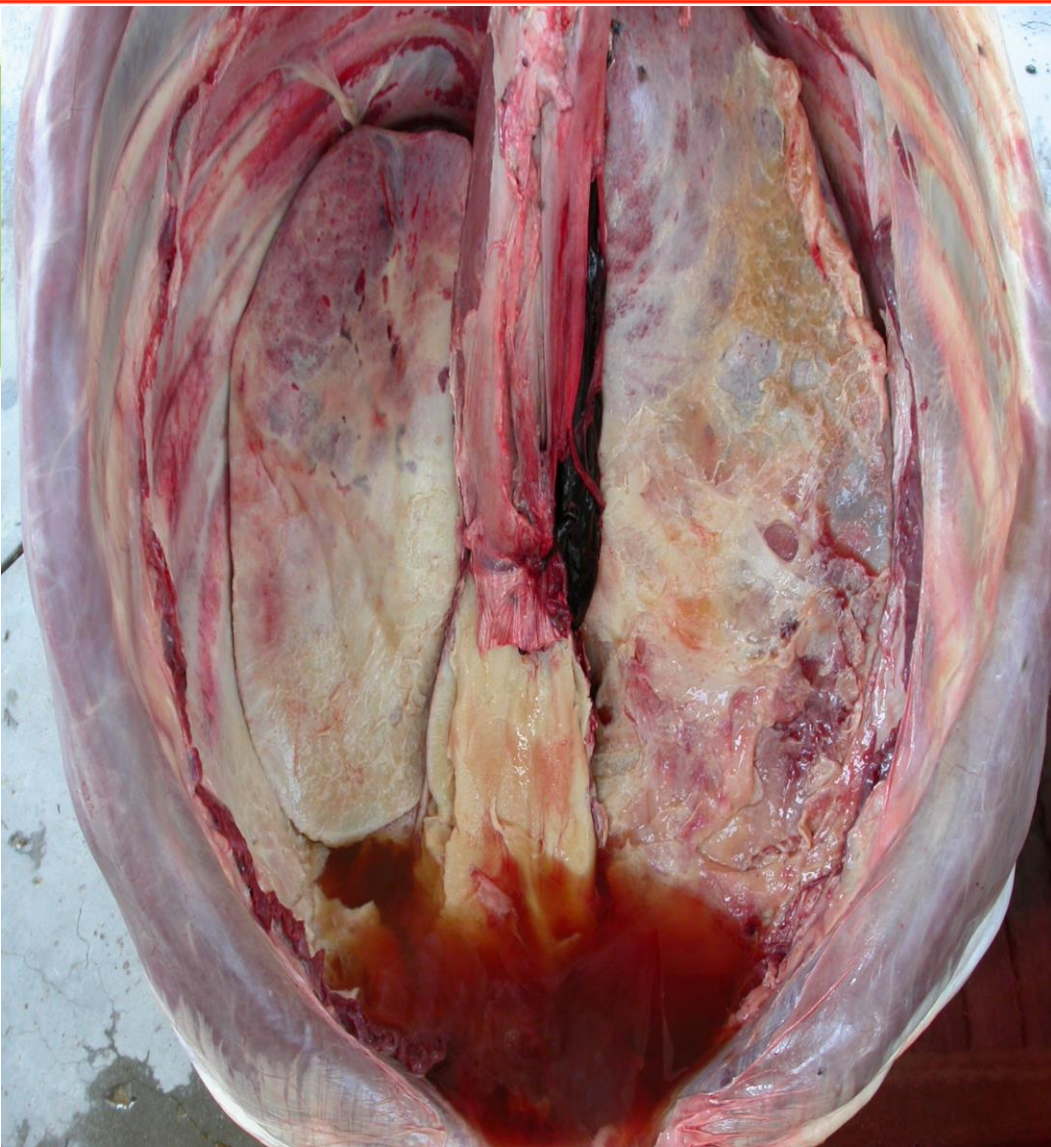
SIZE

SHAPE

Chest Cavity Inspection

**Parietal and visceral Pleura
should be visually examined**





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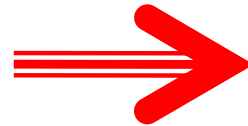
Lung Inspection



Lung Inspection *Palpation*



**INCREASED
CONSISTENCE**



**DECREASED
CONSISTENCE**

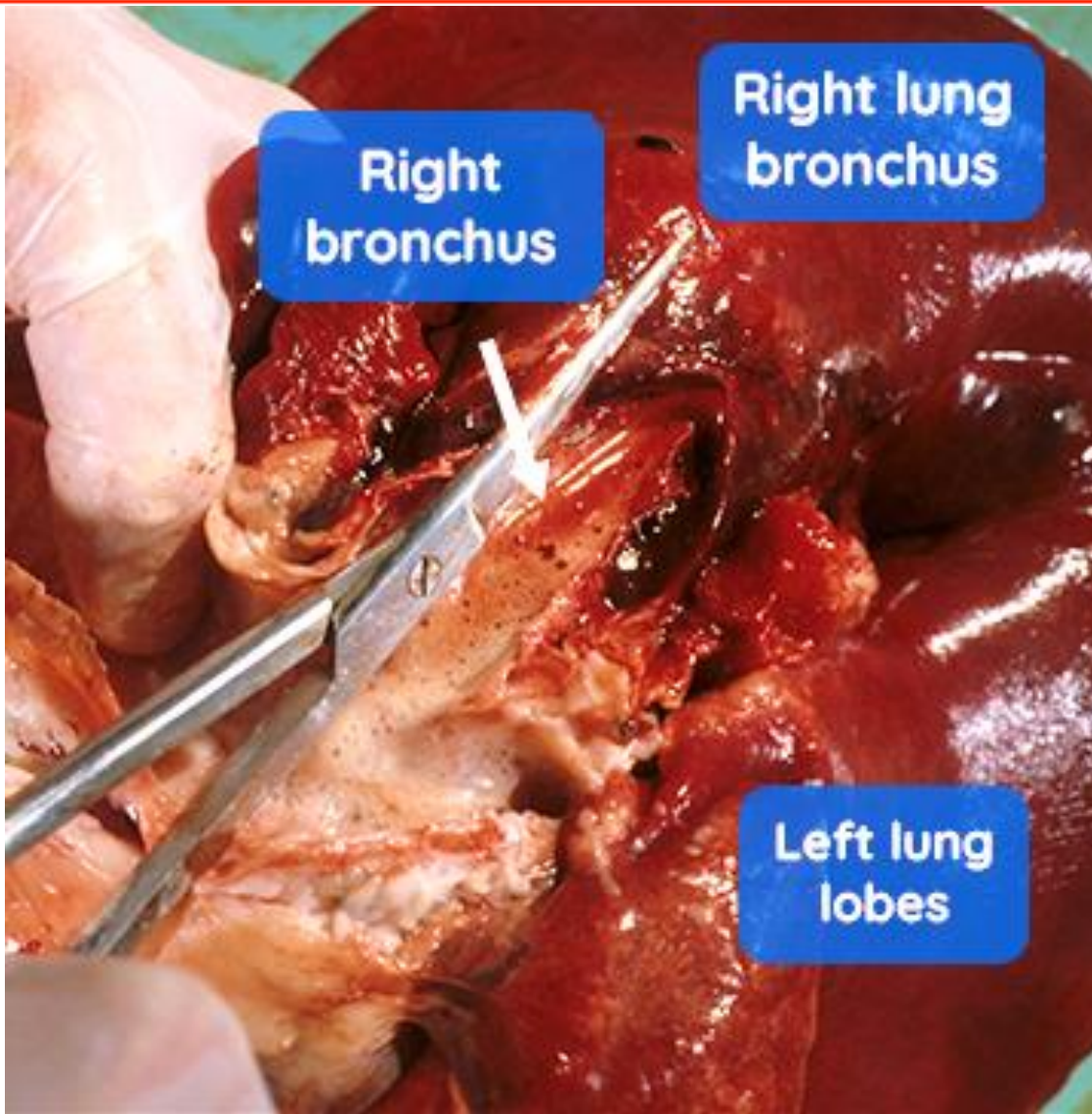


Lung Inspection *Palpation*

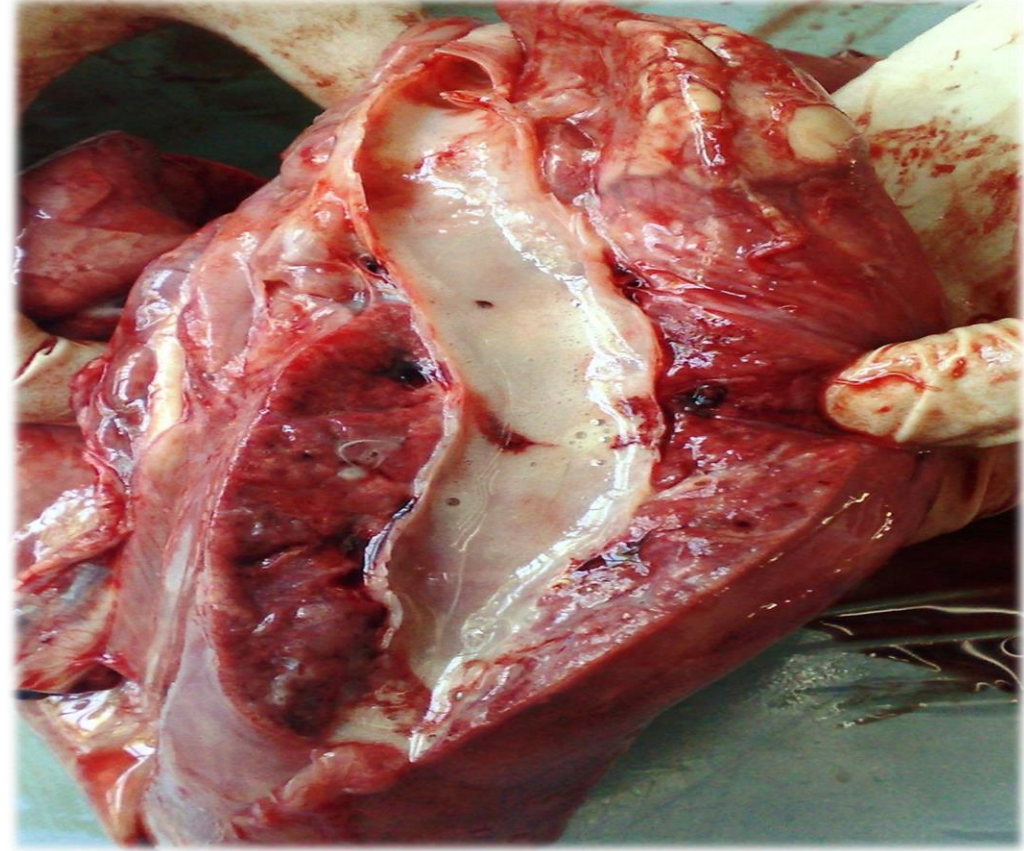
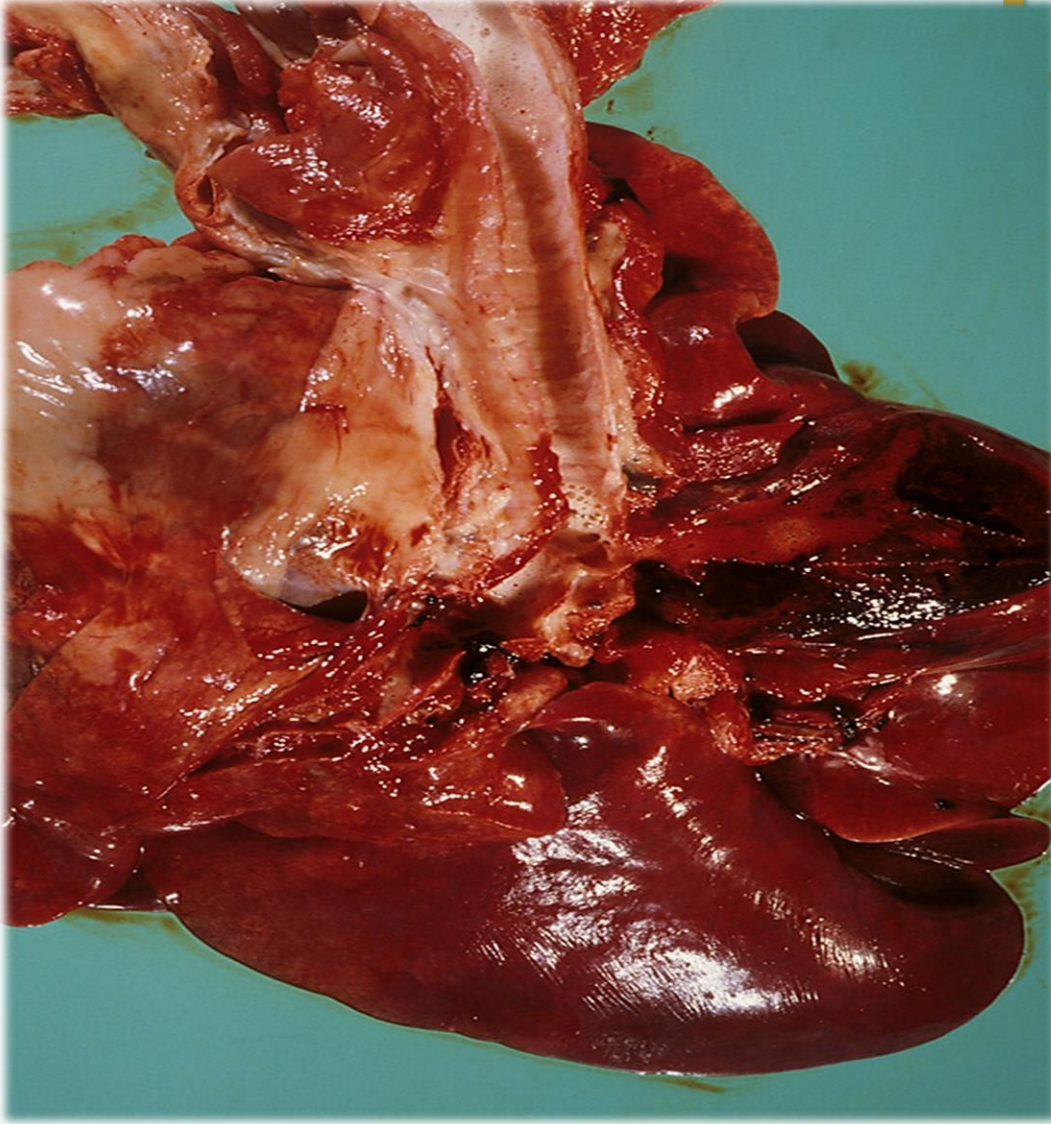
In animals with chronic CBPP, **pulmonary palpation is essential** because lung lesions consist exclusively of **sequestra**, which may **vary considerably in size**, ranging from a few centimetres to several decimetres.



Lung inspection *Dissection*

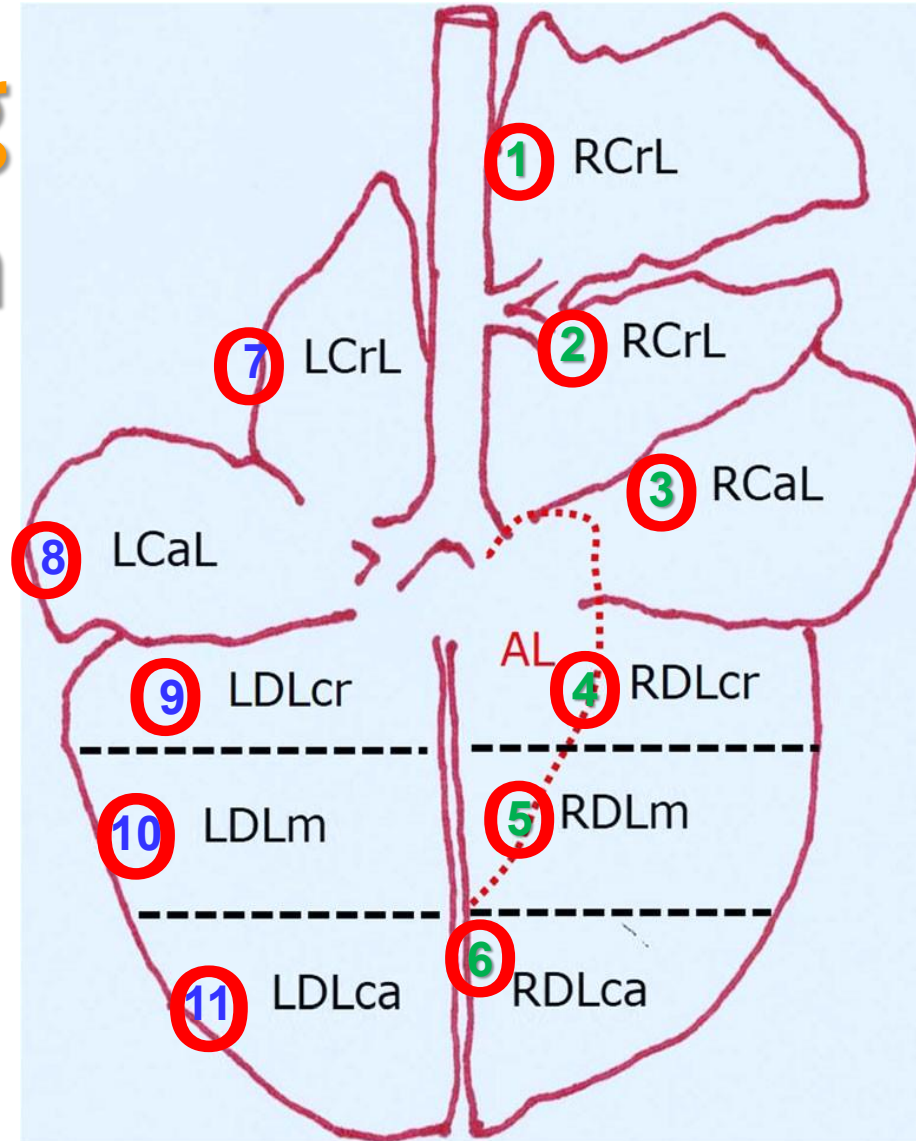


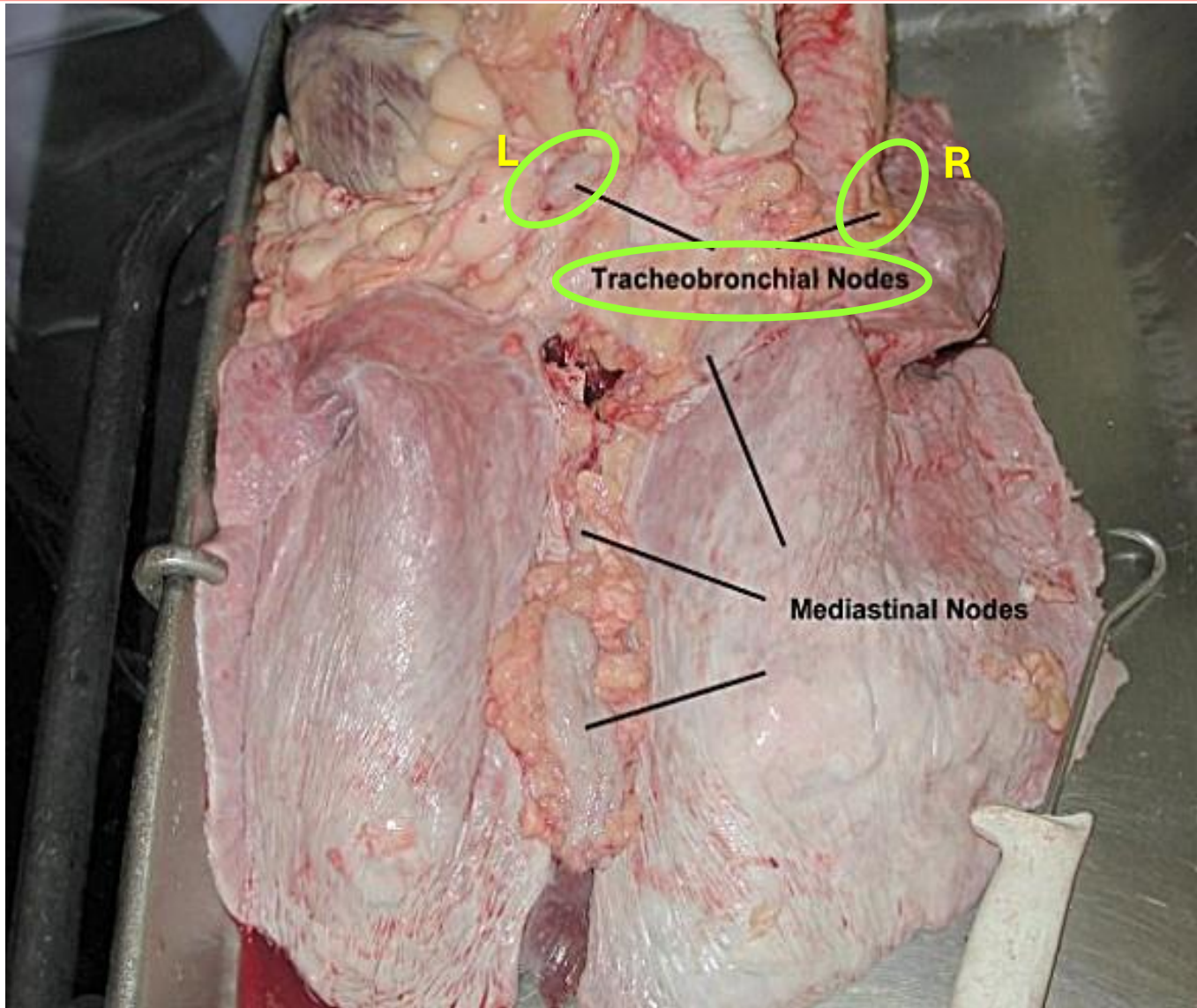
Lung inspection *Dissection*





Lung Dissection





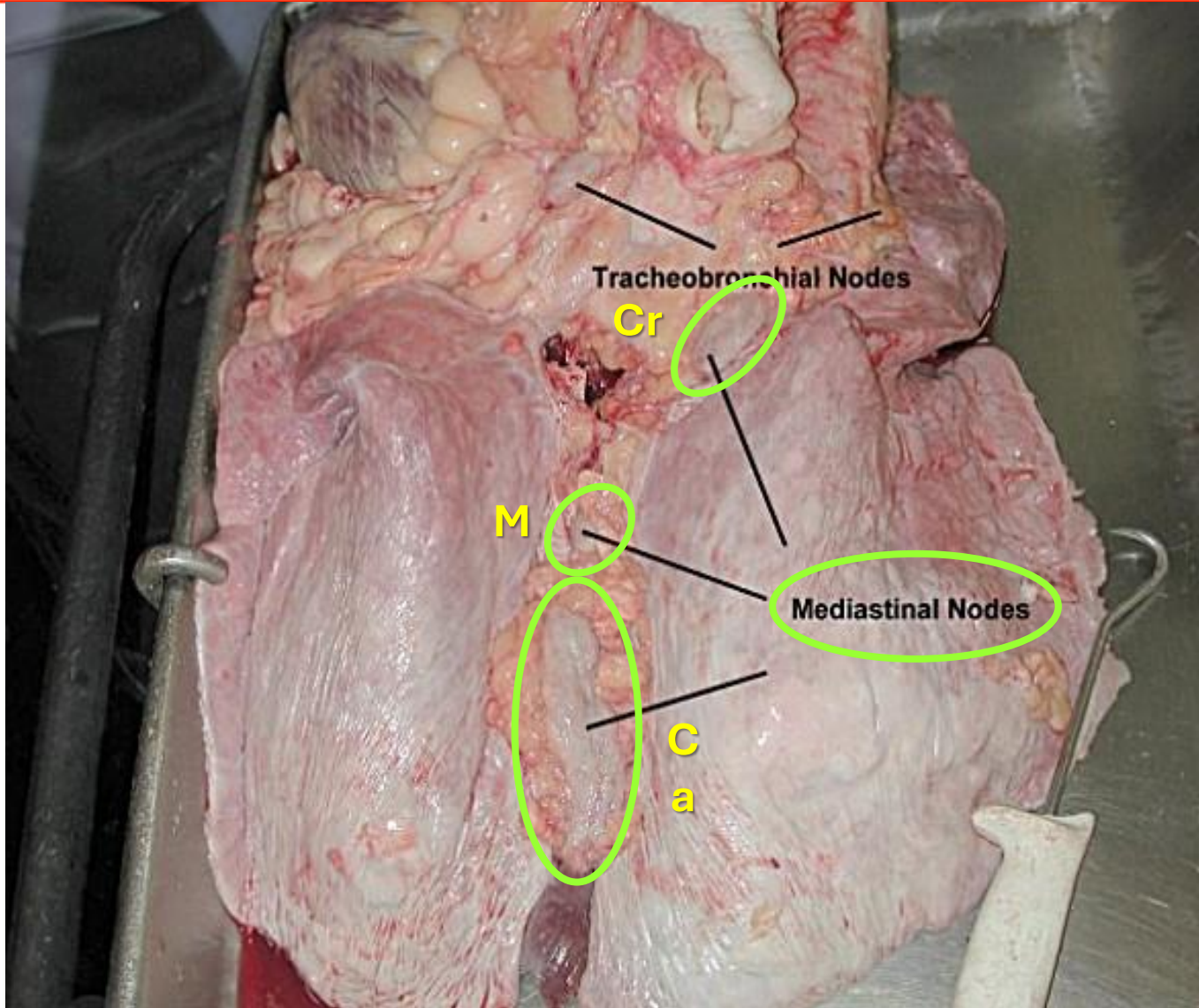
Viscera Inspection

Tracheobronchia

L

Lymph Nodes





Viscera Inspection

Mediastinal Lymph Nodes

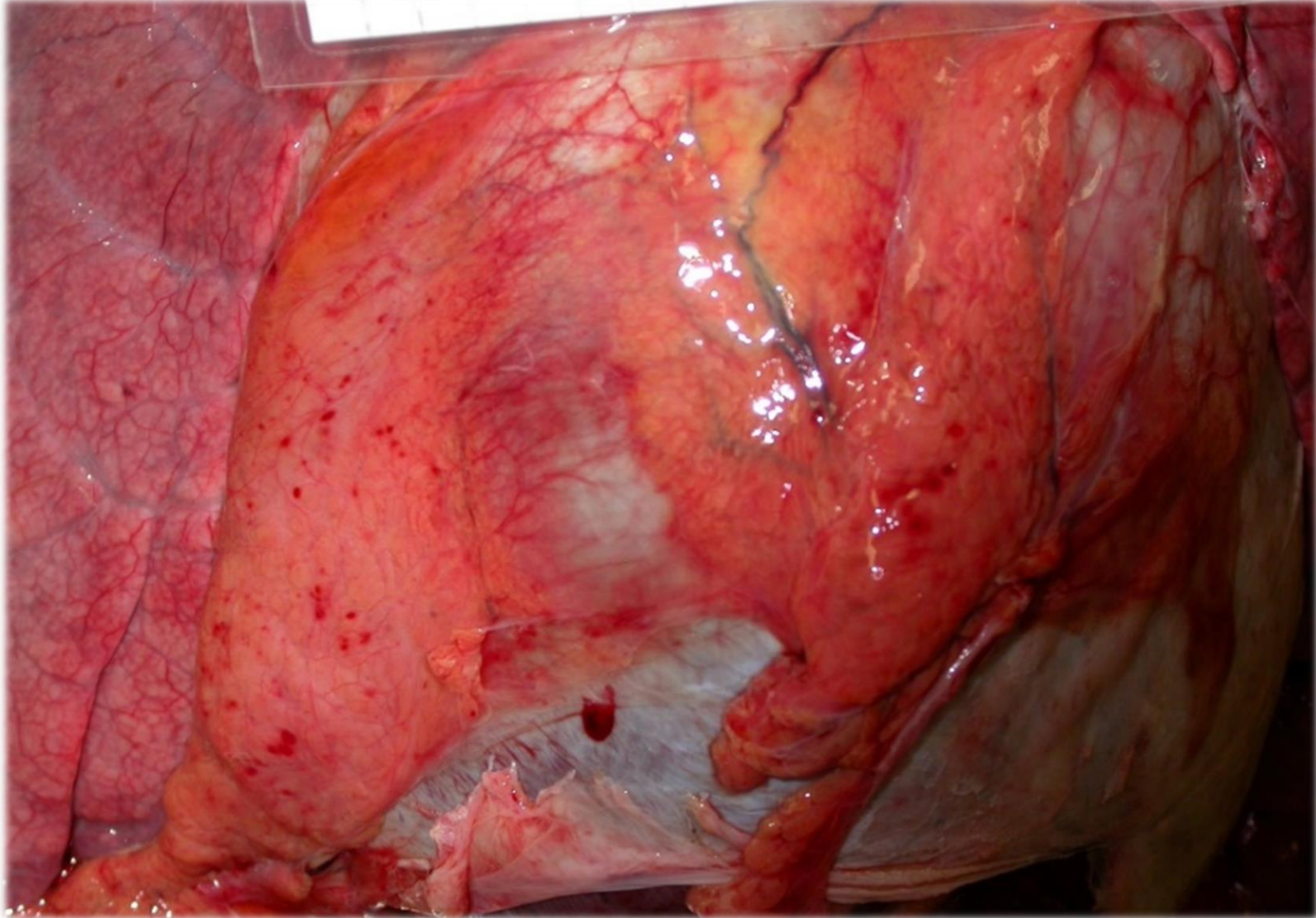




Viscera Inspection



**Check thoracic
lymph nodes
examining the
cutting surface**



Heart: Pericardium



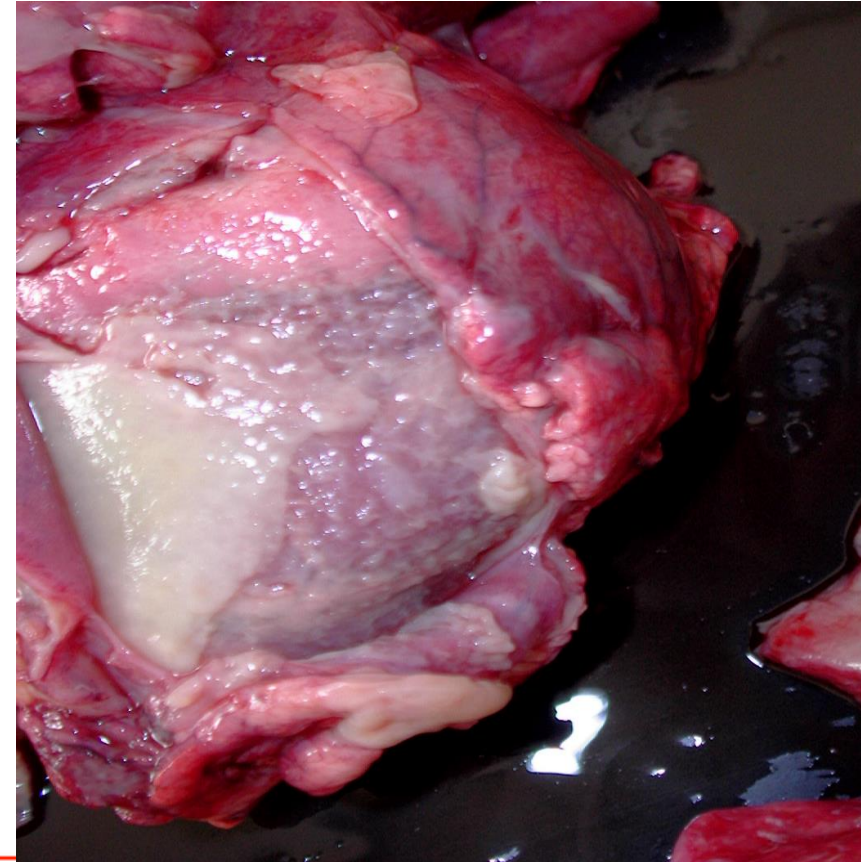
**Check
Pericardial sac**



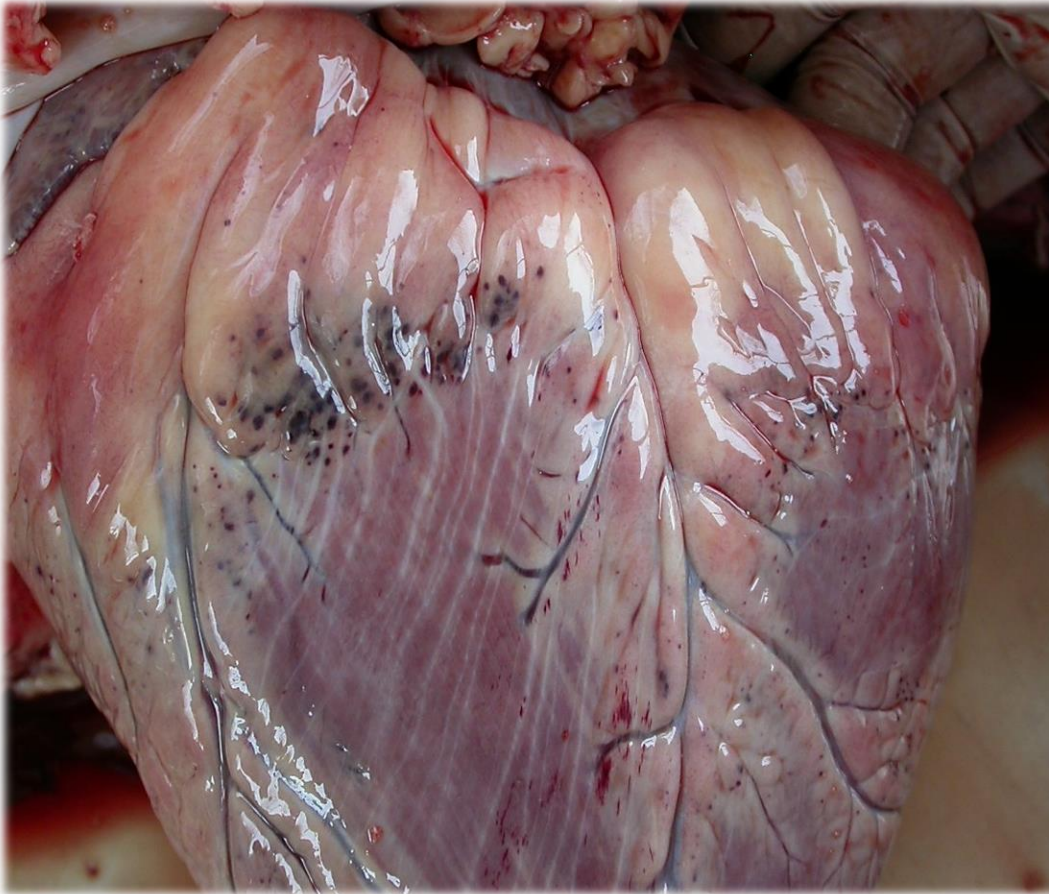
Heart: Pericardium and Epicardium



**Open
pericardial
sac taking
note
presence:
Liquid and/or
Adhesions**



Heart



Examine Epicardium and Endocardium

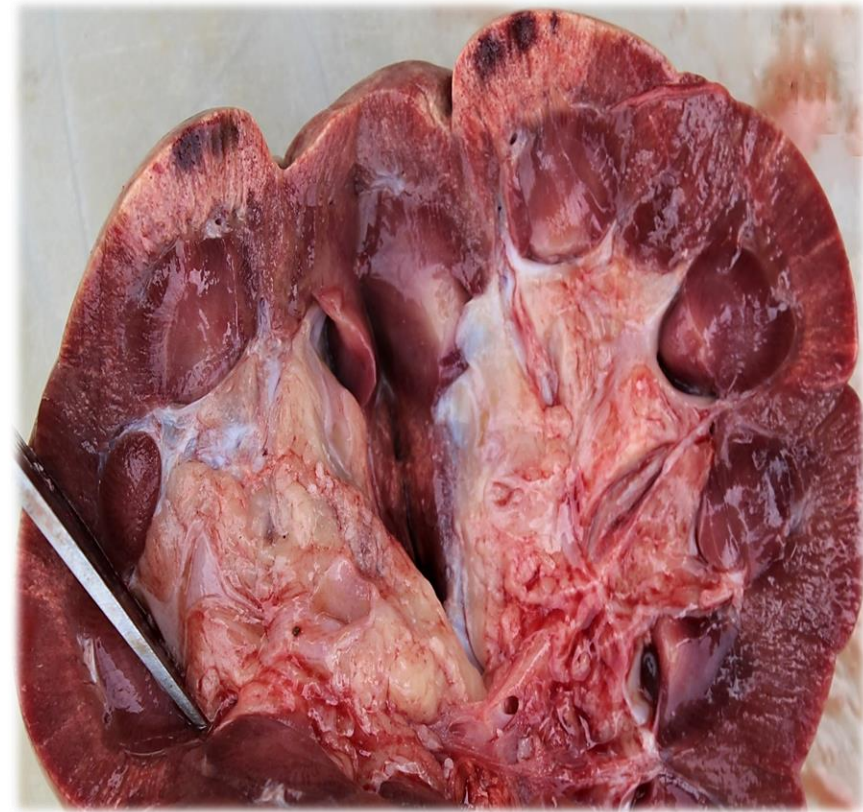
Surface



Viscera Inspection

Kidney

Cutting g surfac e



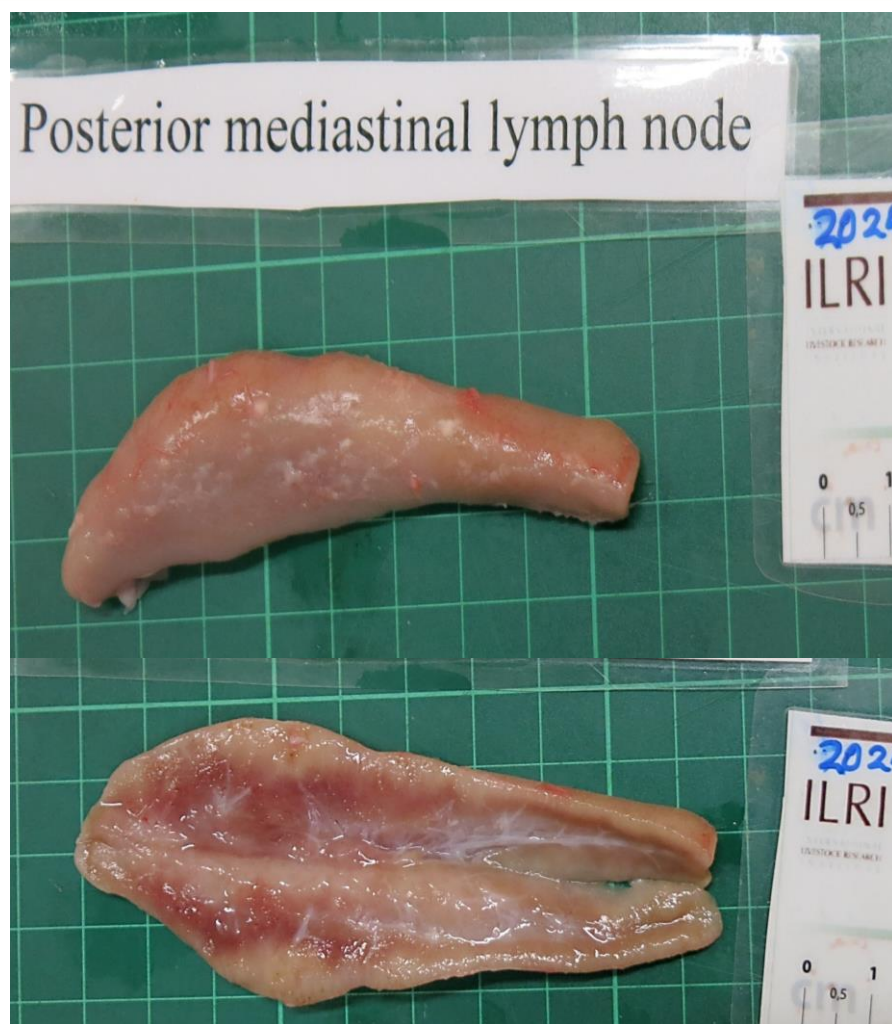


First of all, remind us how a healthy lung looks









And
healthy
Lymph
nodes



CBPP LESIONS DETECTABLE AT SLAUGHTERHOUSE



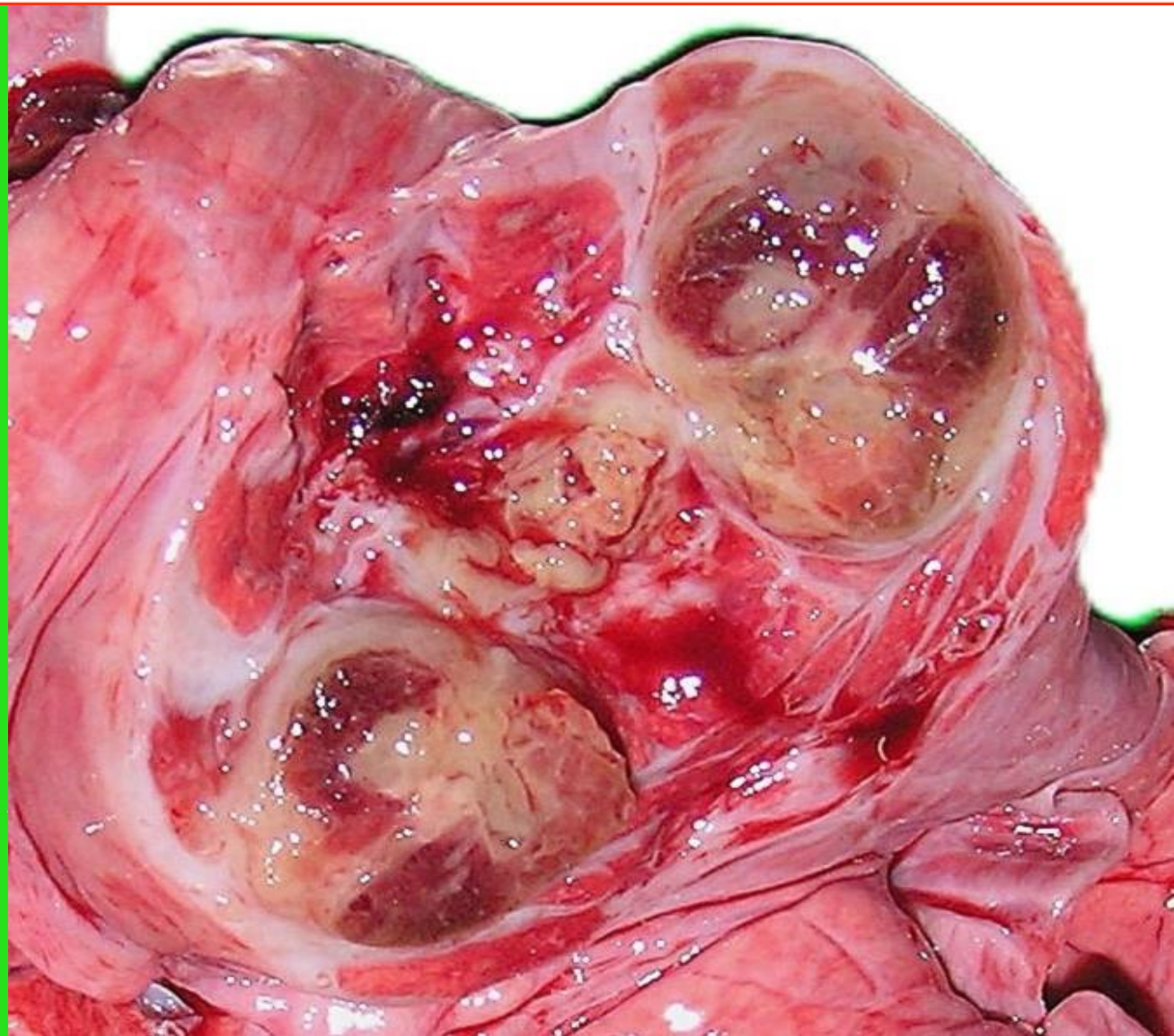
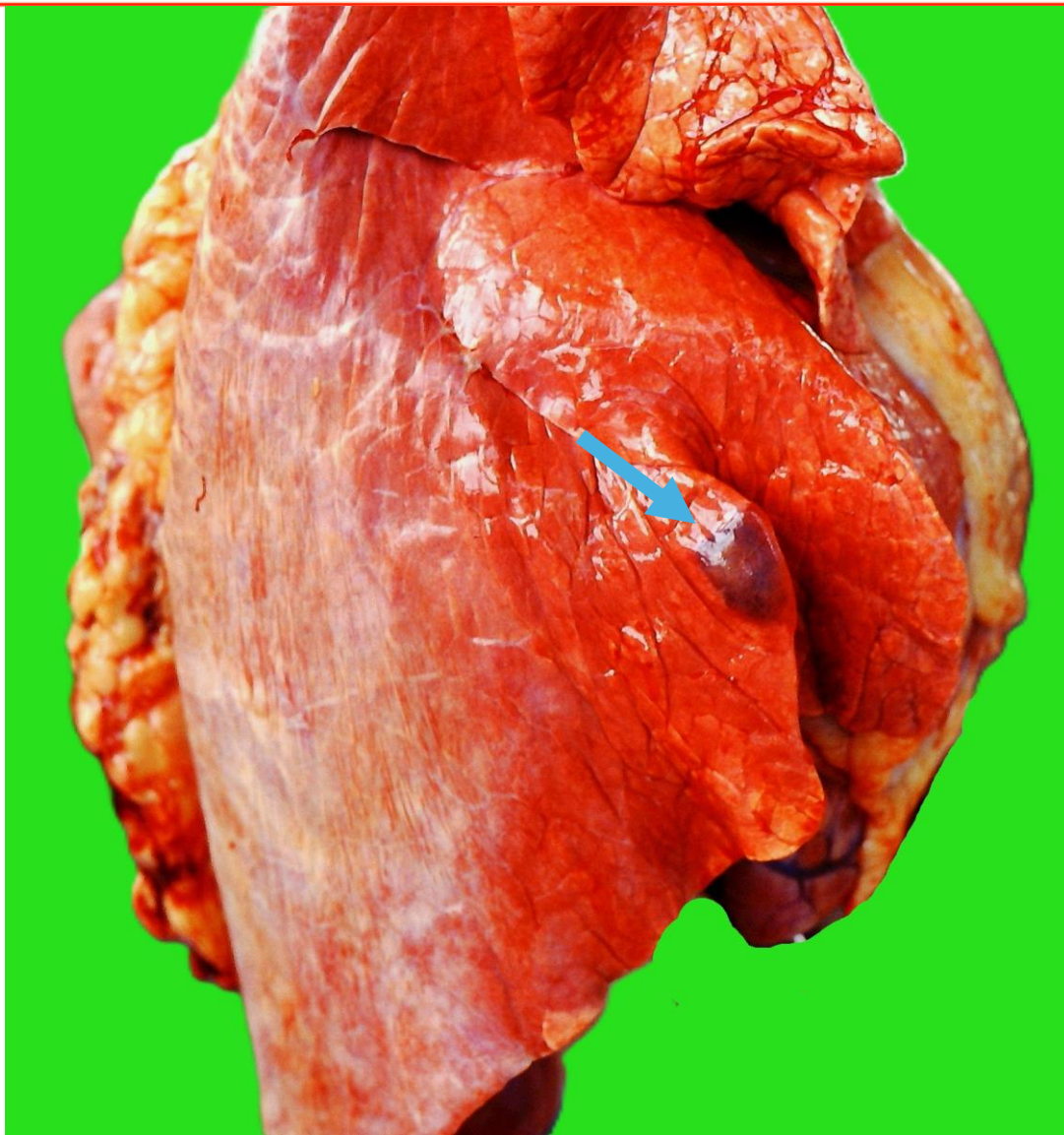
CASE DEFINITIONS

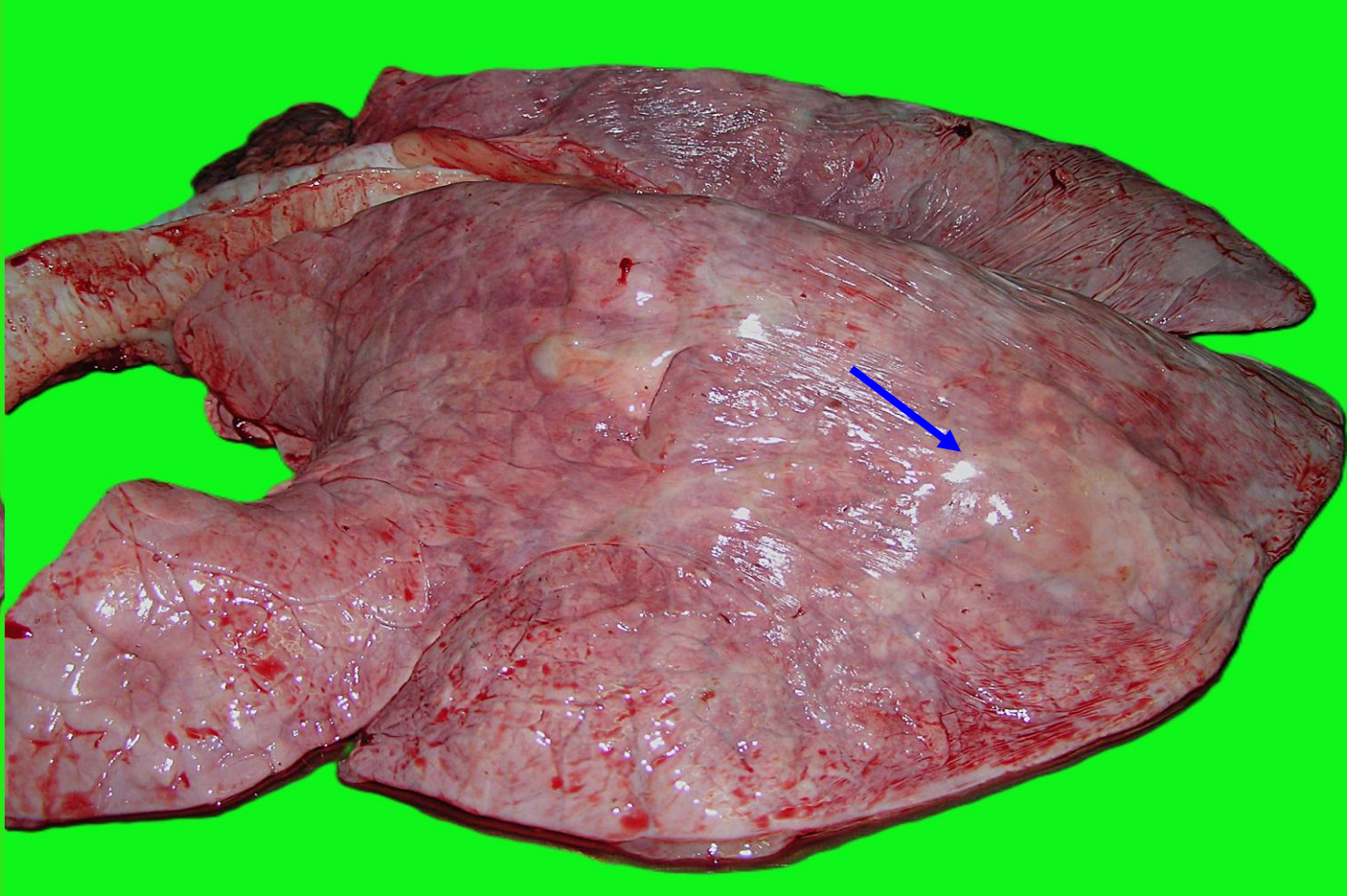
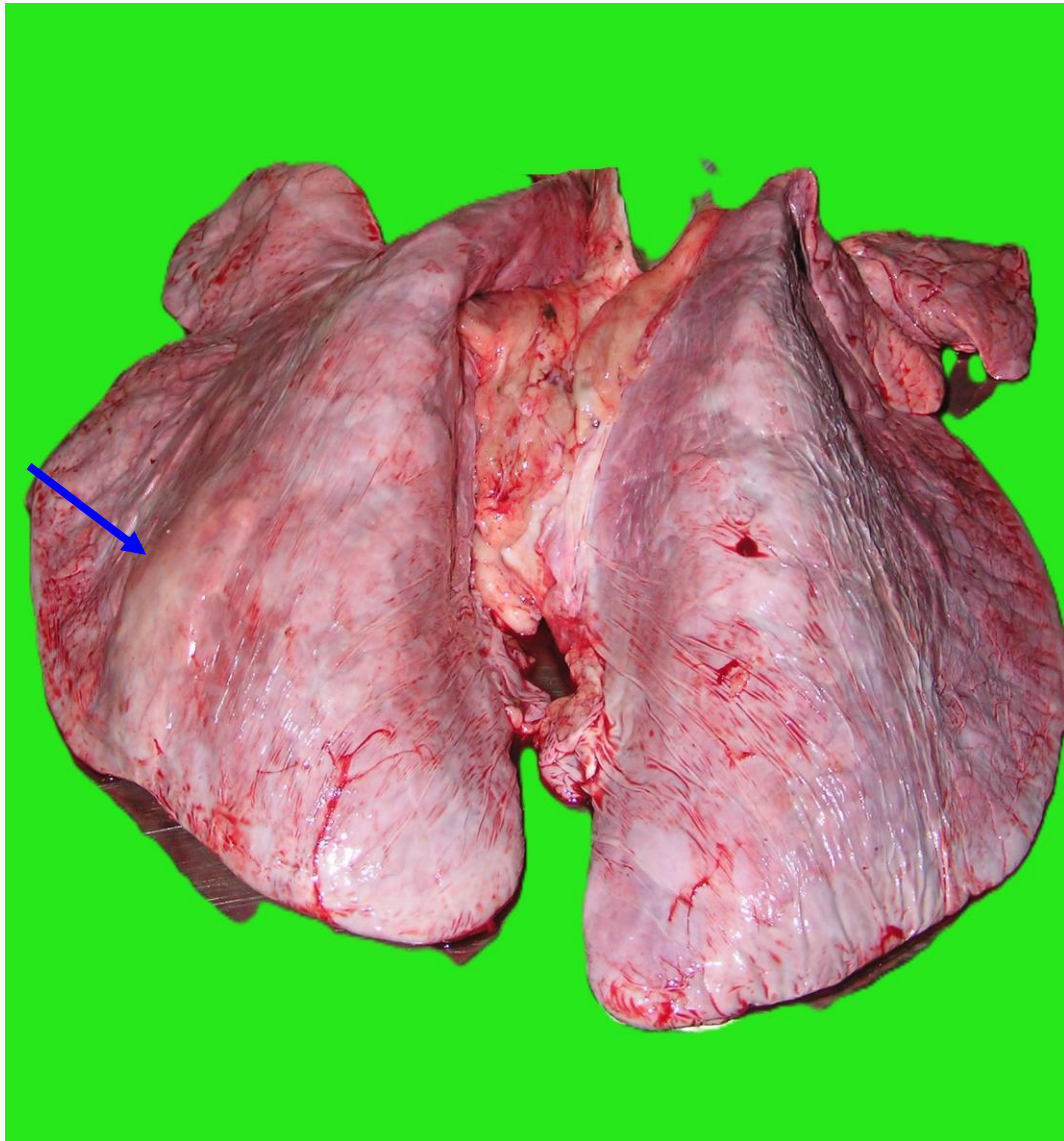
Suspected carcass (PM):

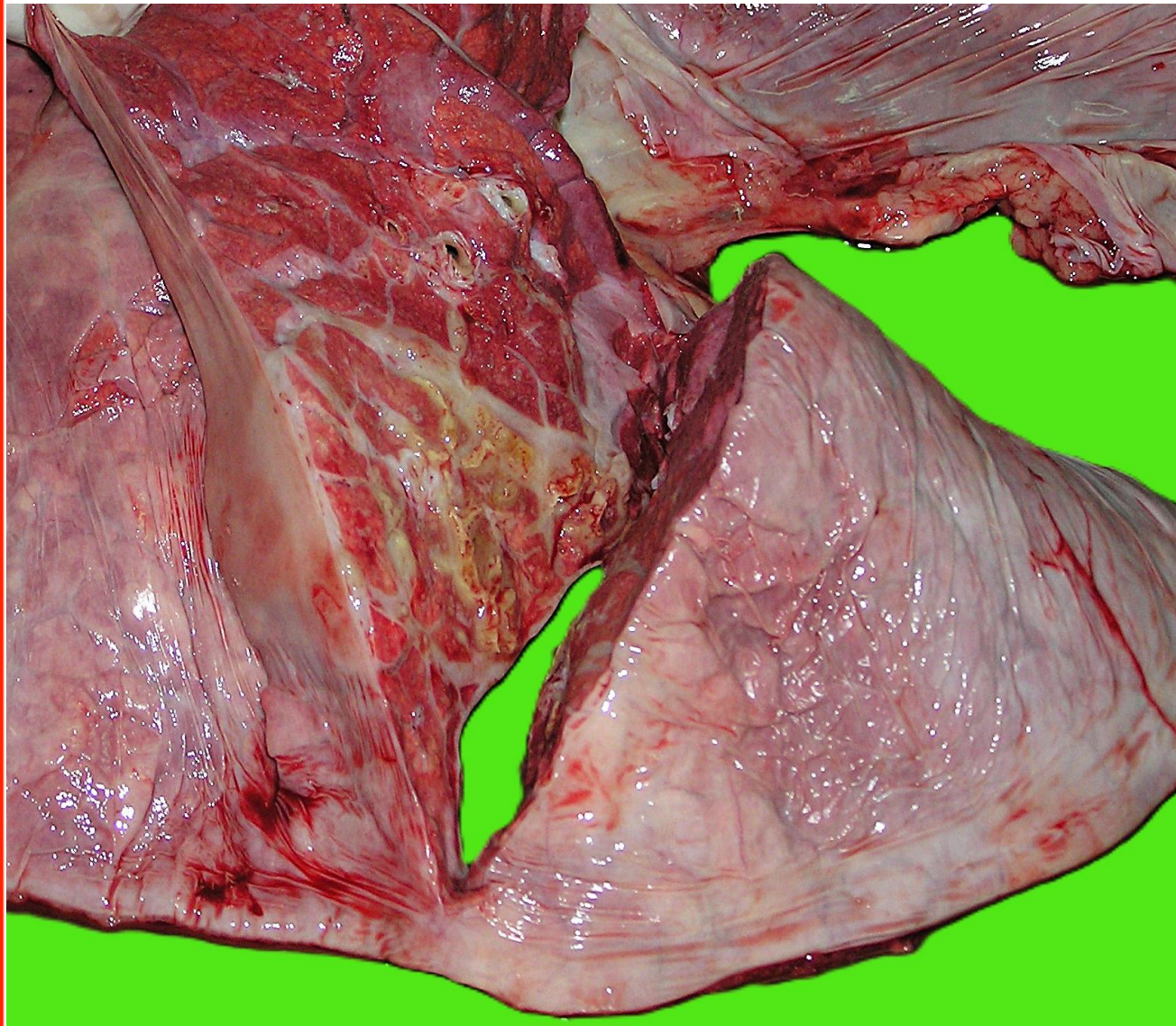
Lungs and pleura showing one or more of the following unilateral , occasionally bilateral lesions:

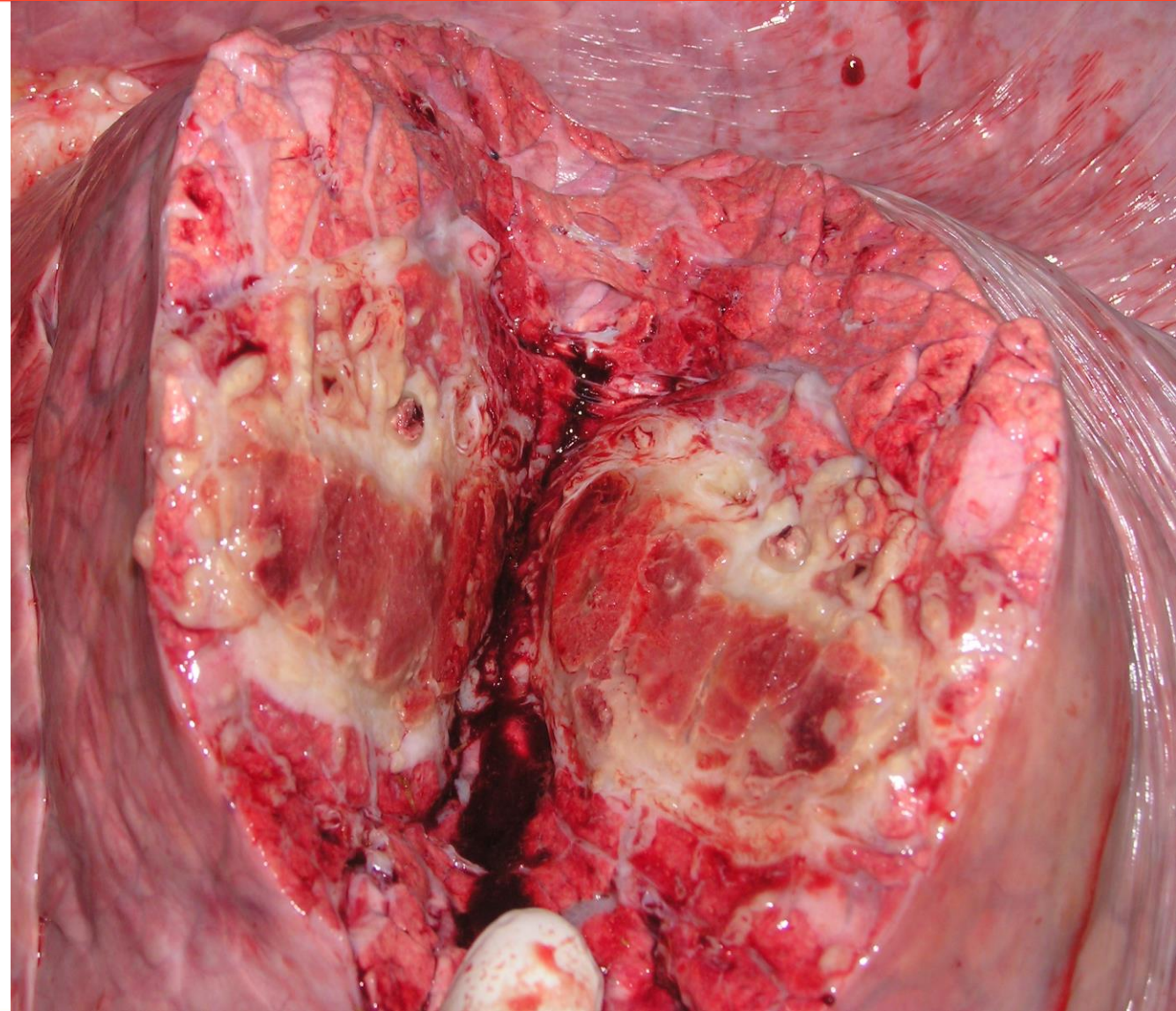
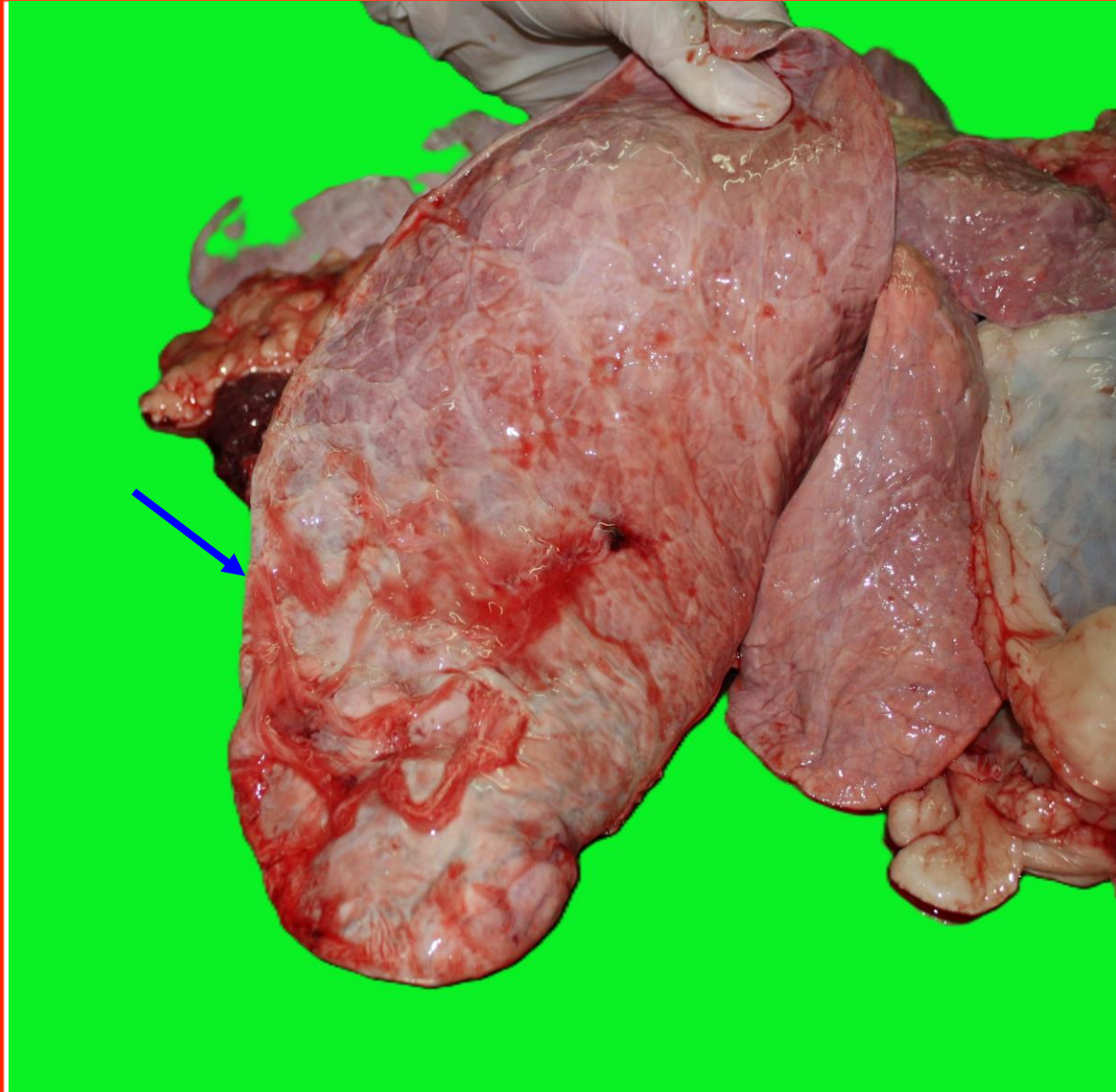
- **Fibrinous pleuritis and Adhesions**
- Marbled hepatisation and thickness of interlobular septa (Typically associated with clinical signs)
- **Sequestra (Necrotic foci with a fibrous capsule)**
- Odourless







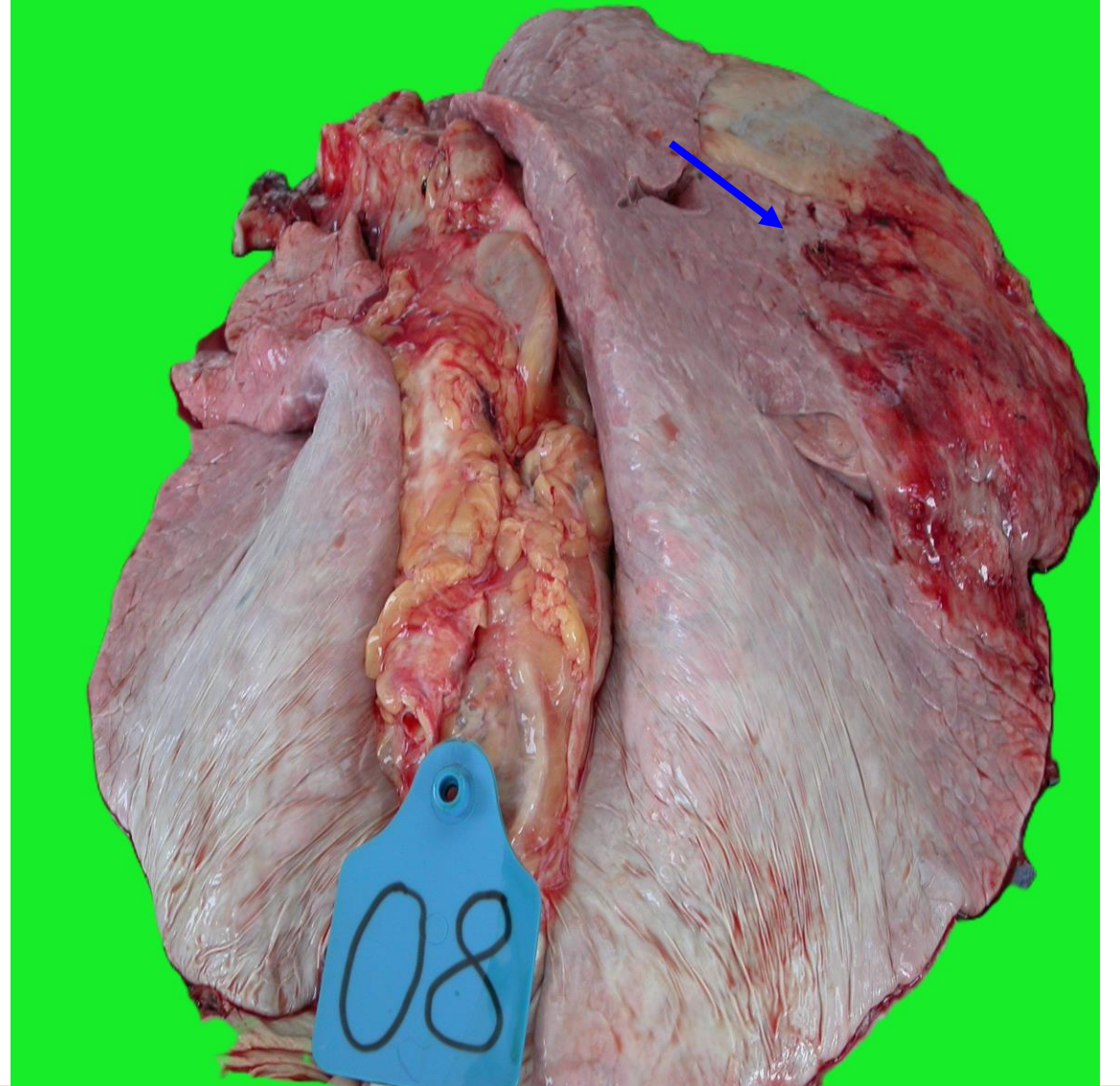


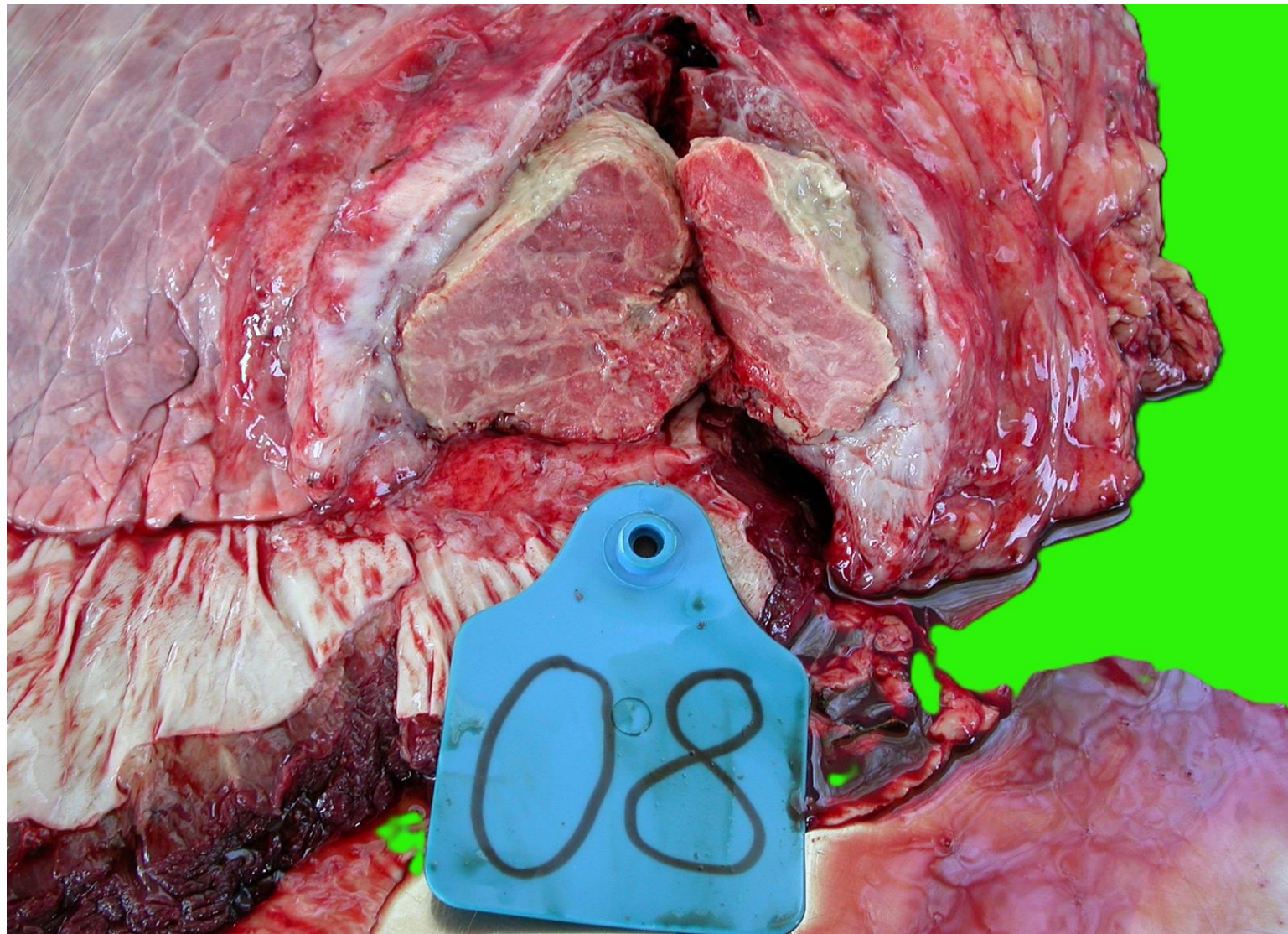


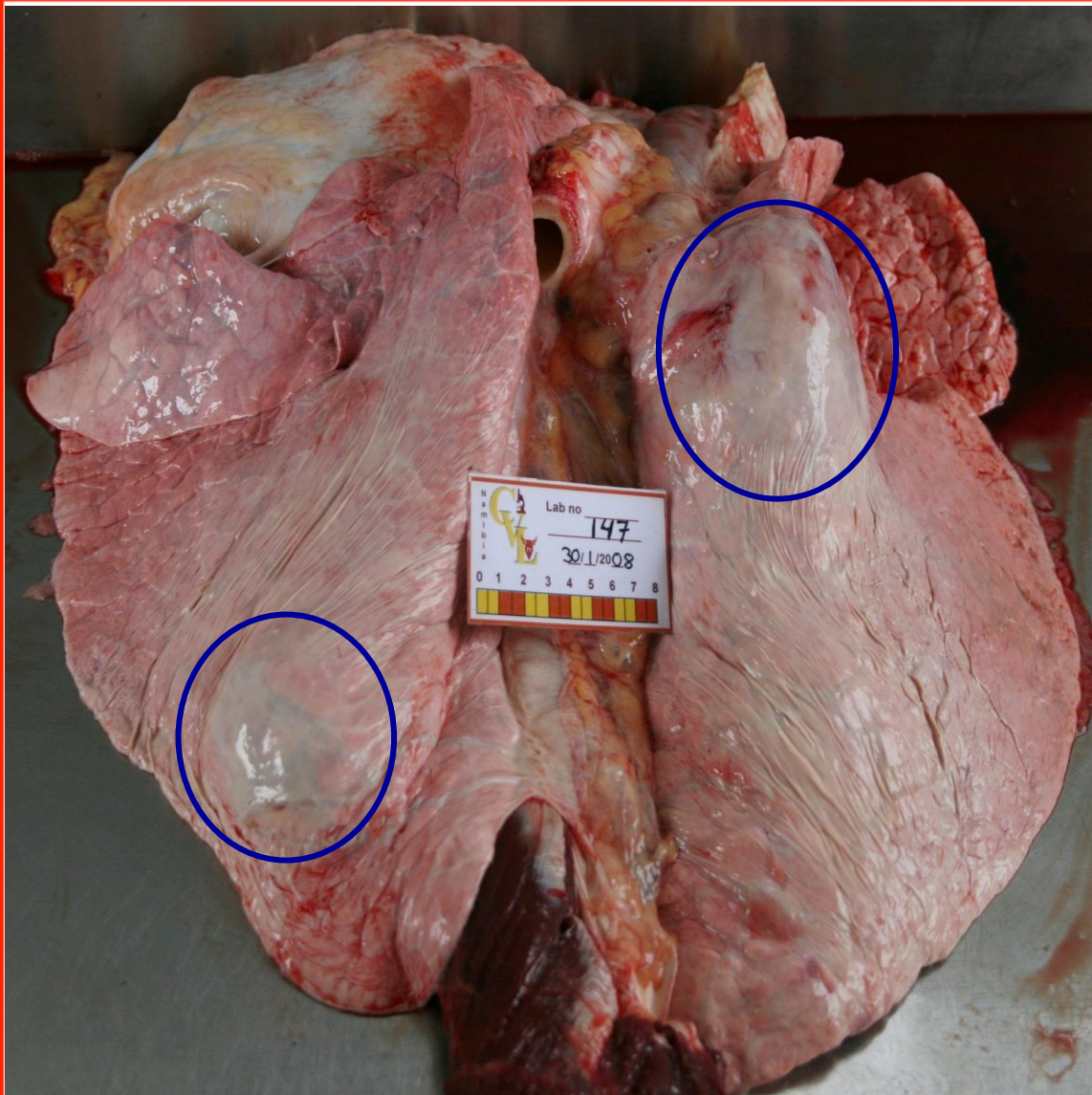
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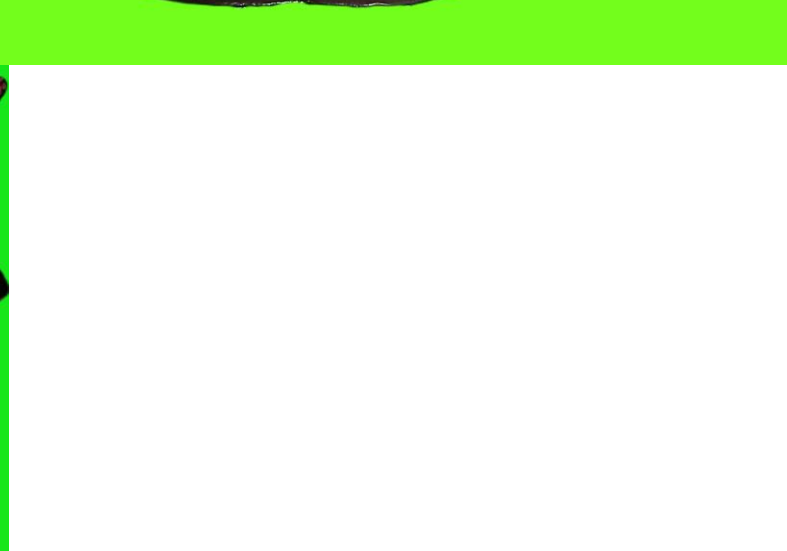
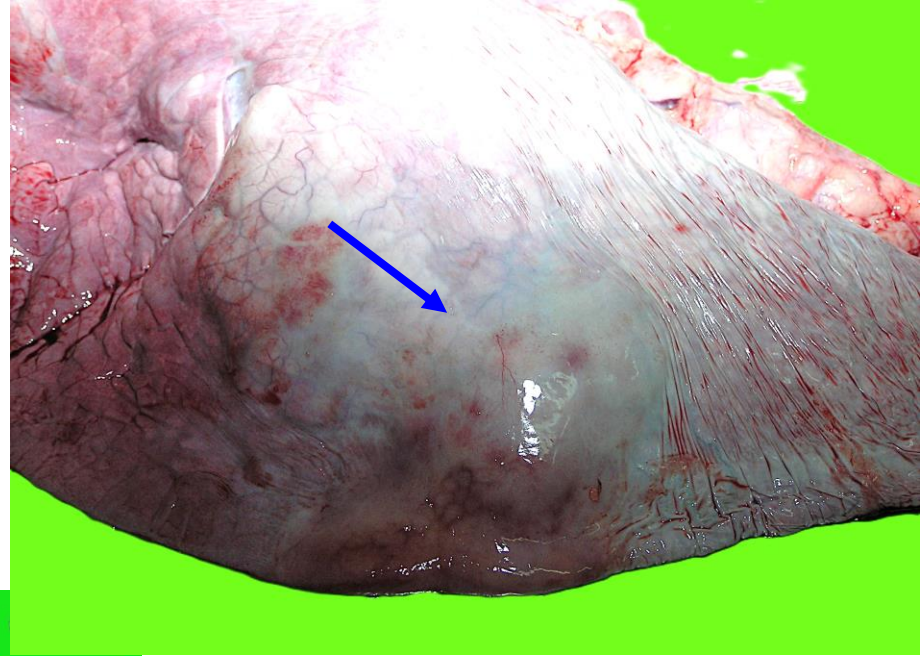
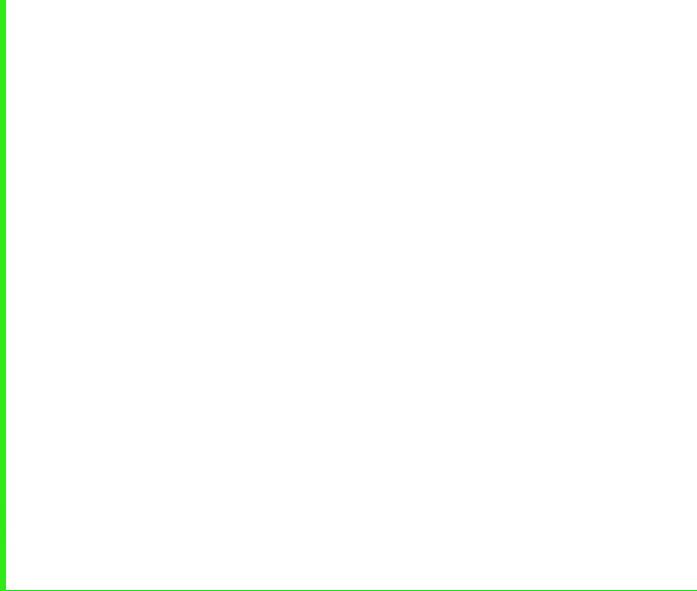
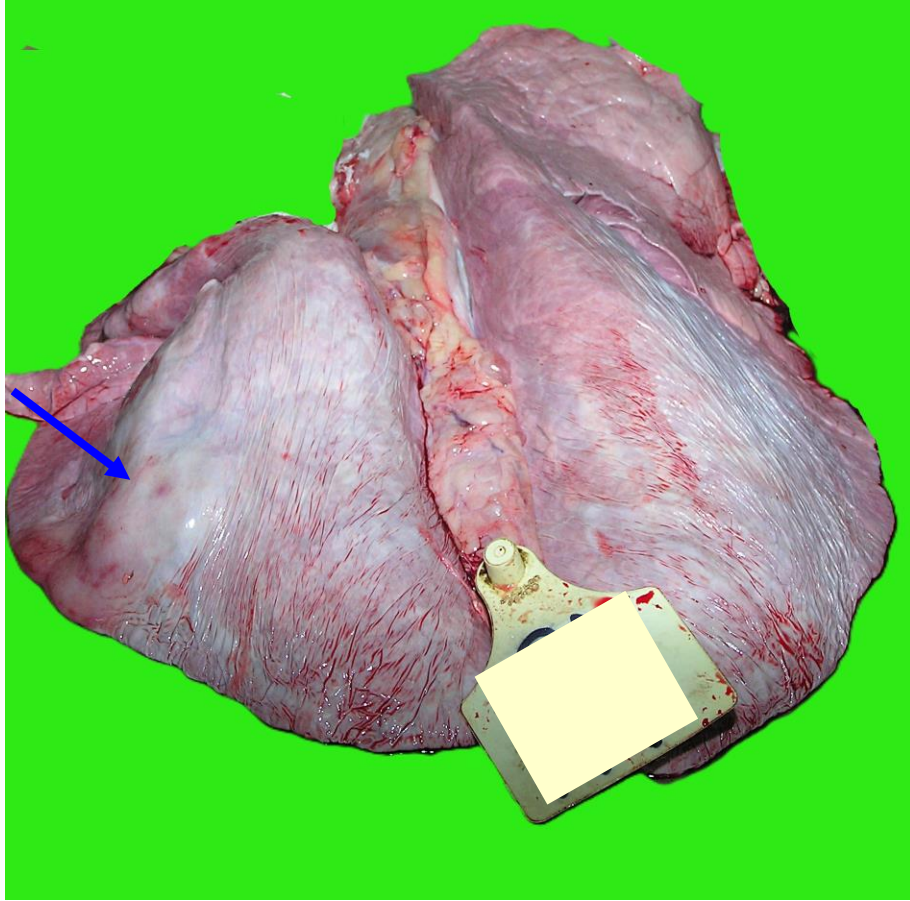
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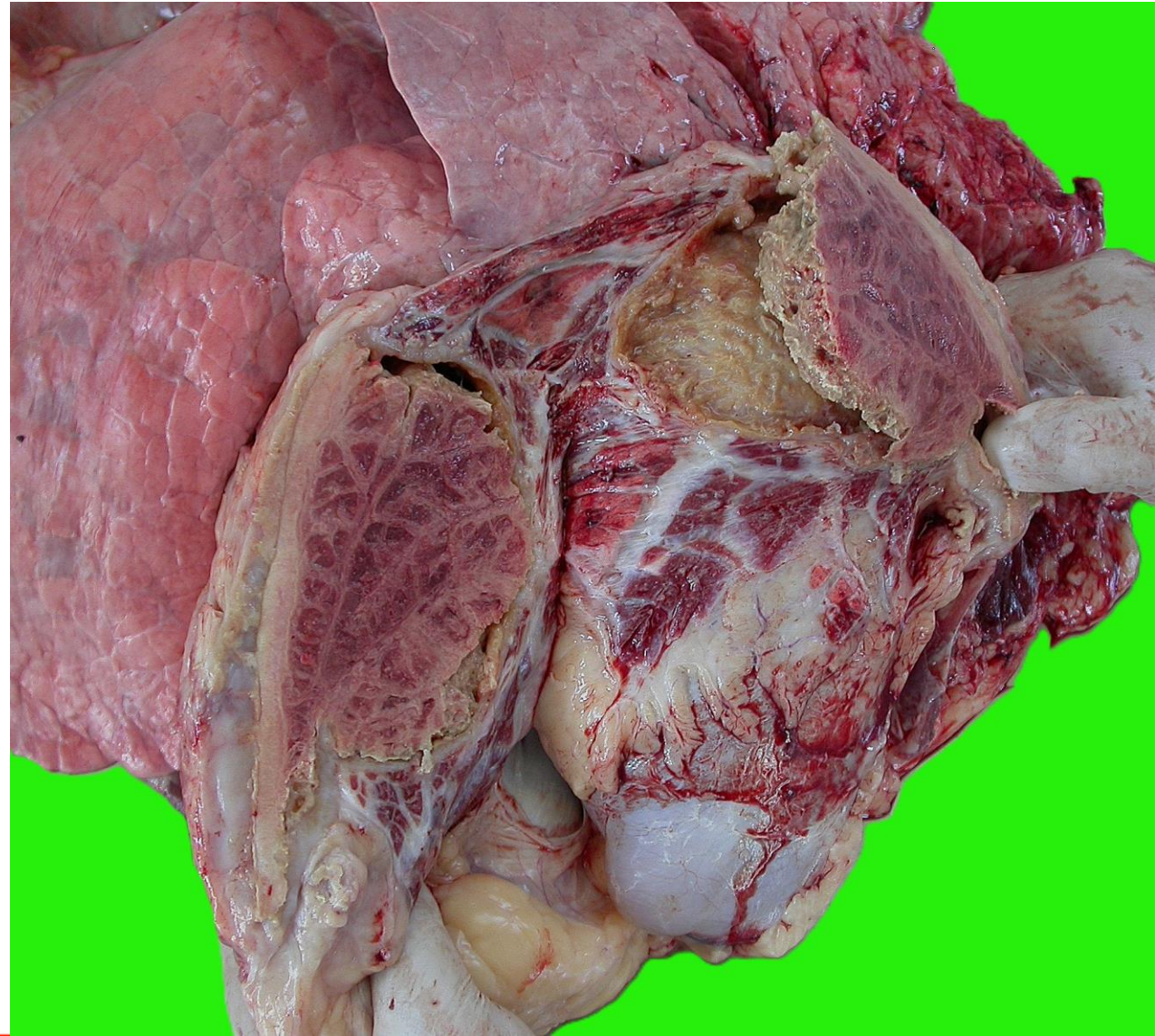
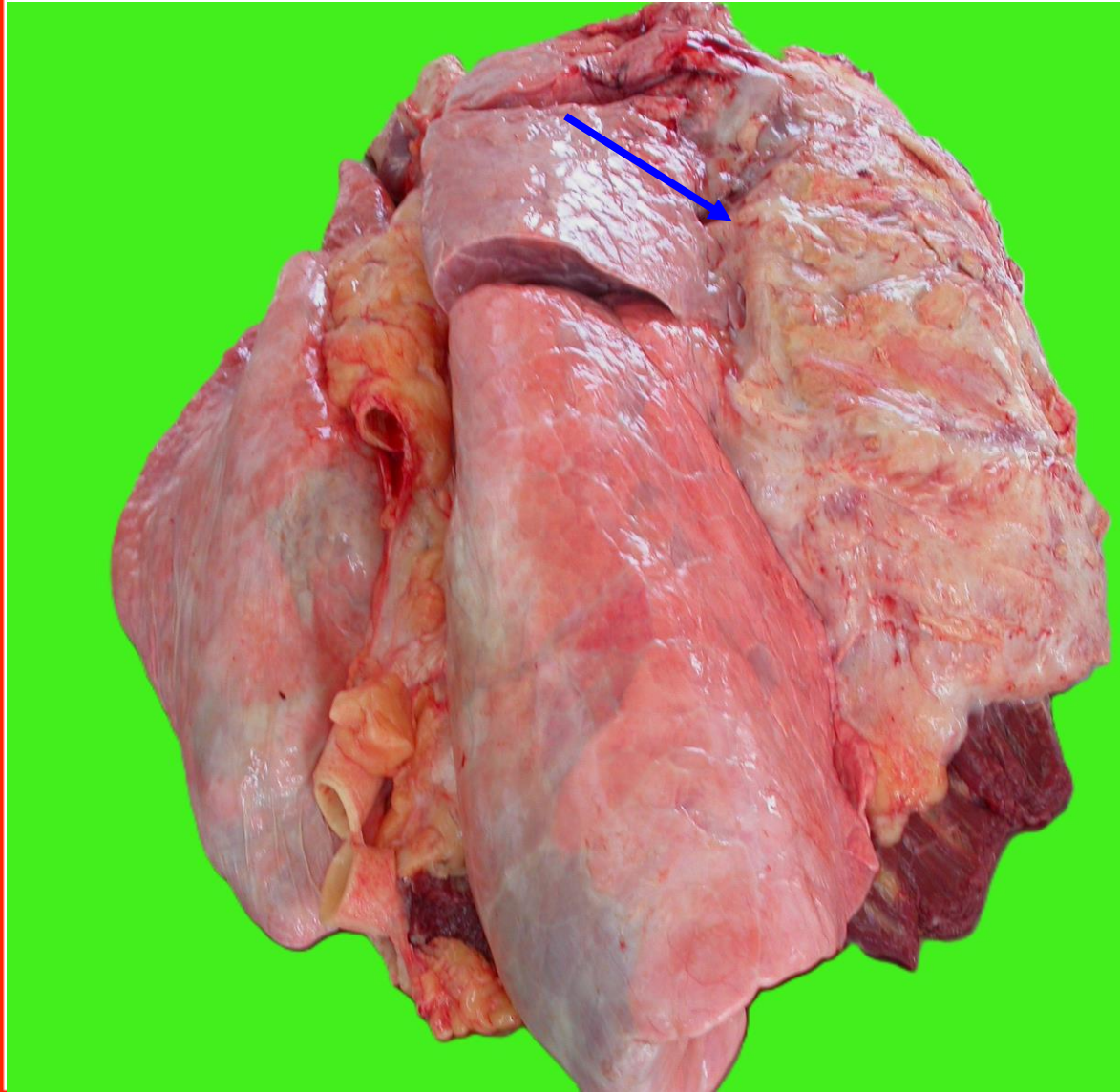








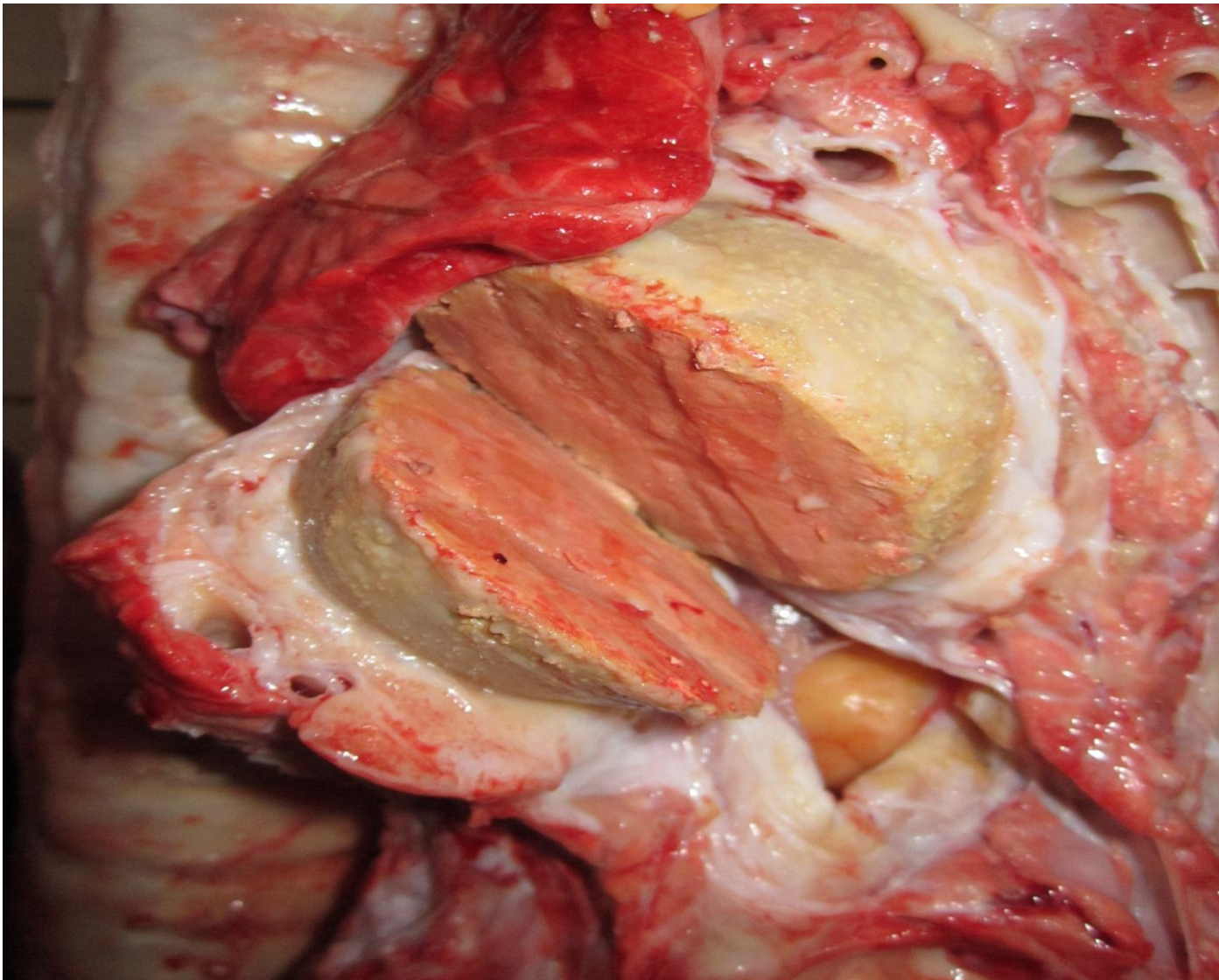


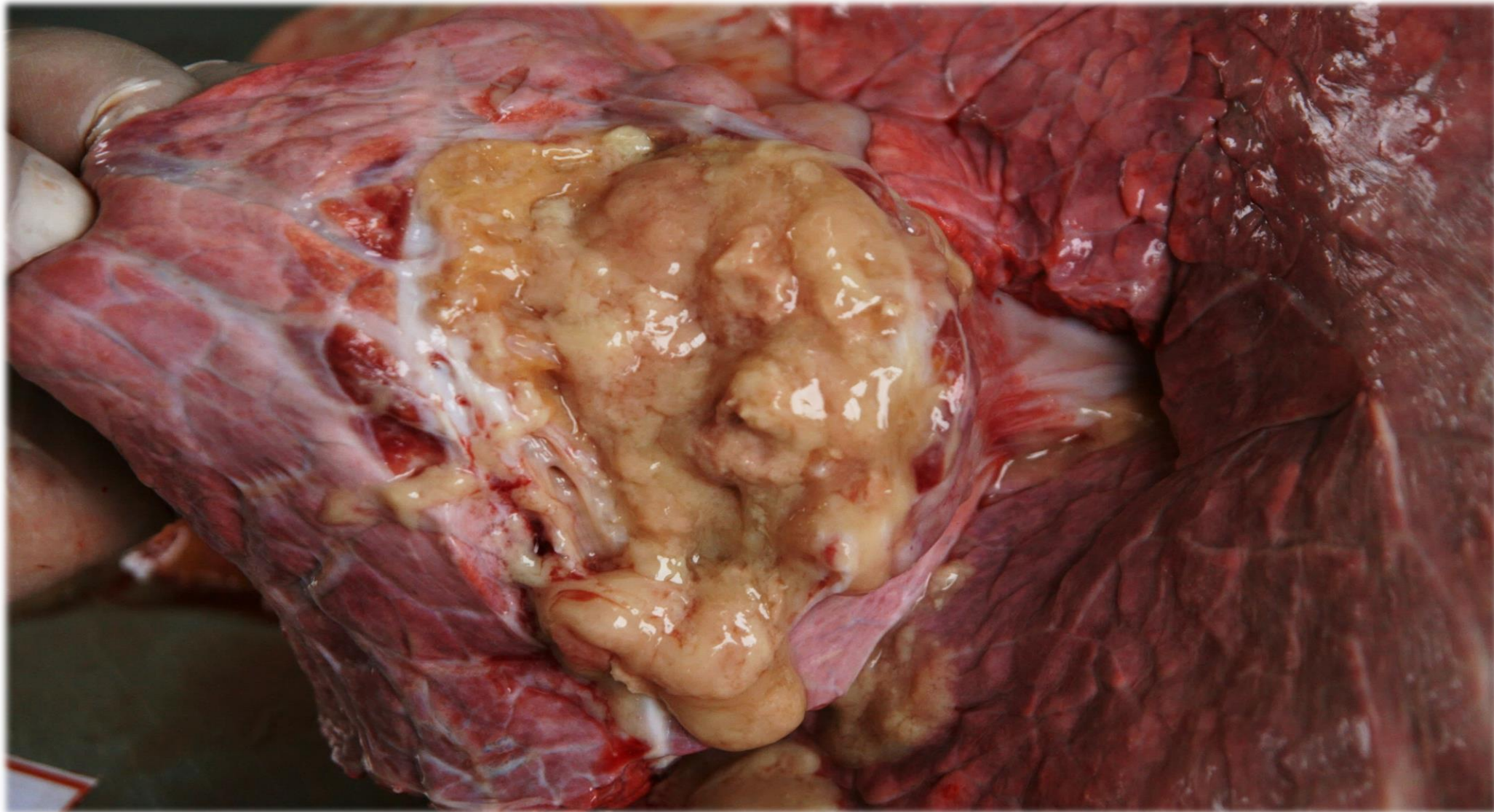


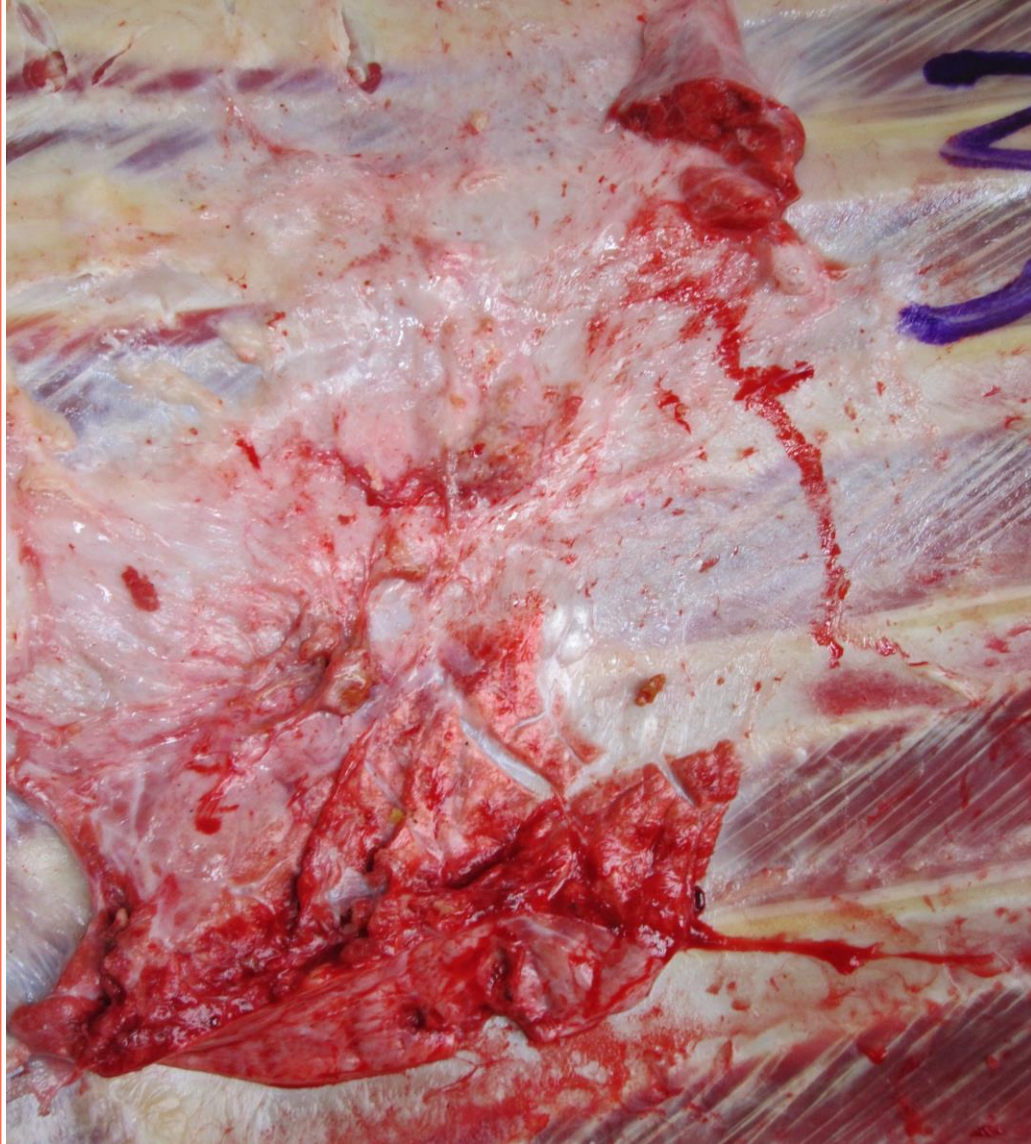
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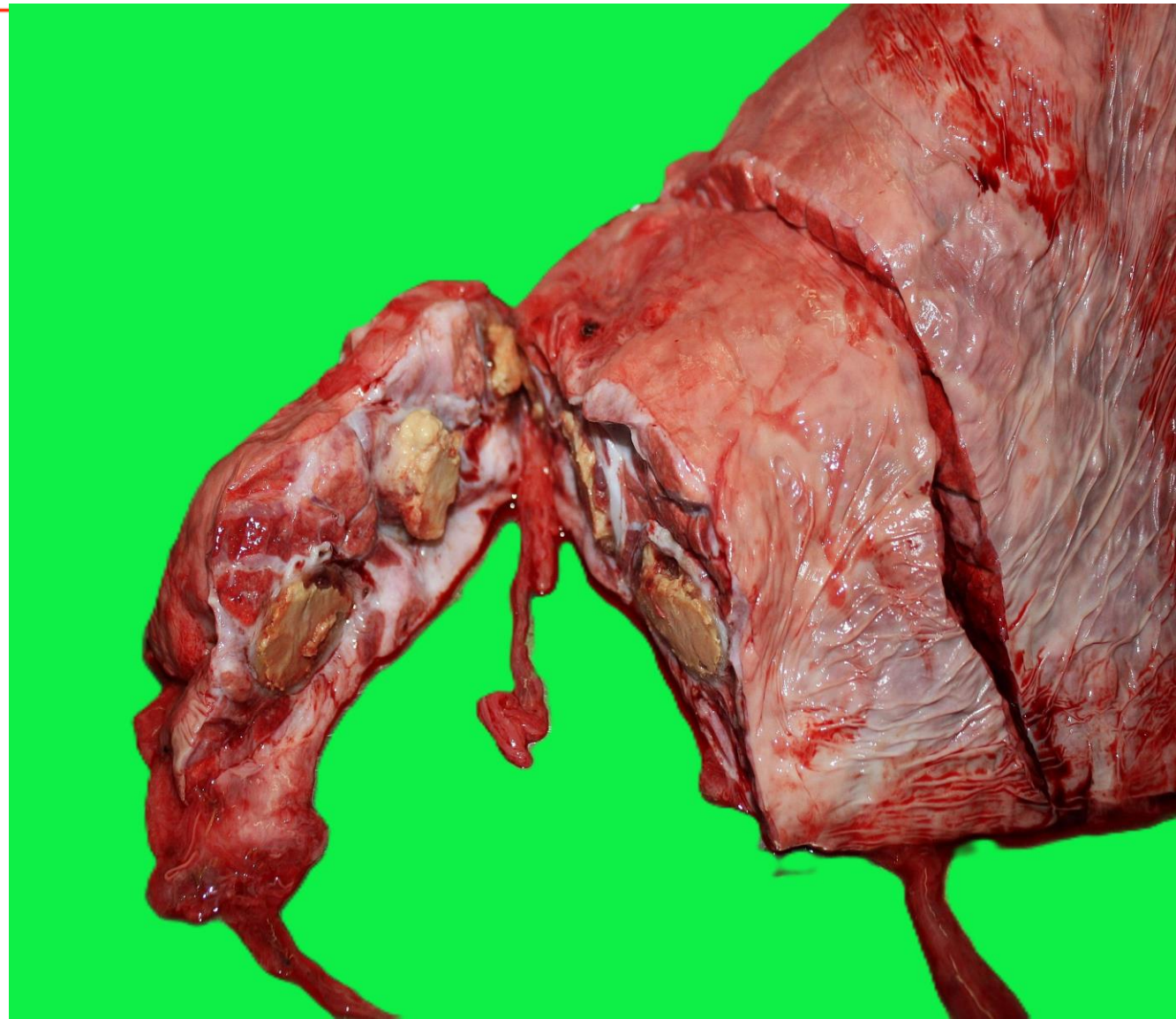
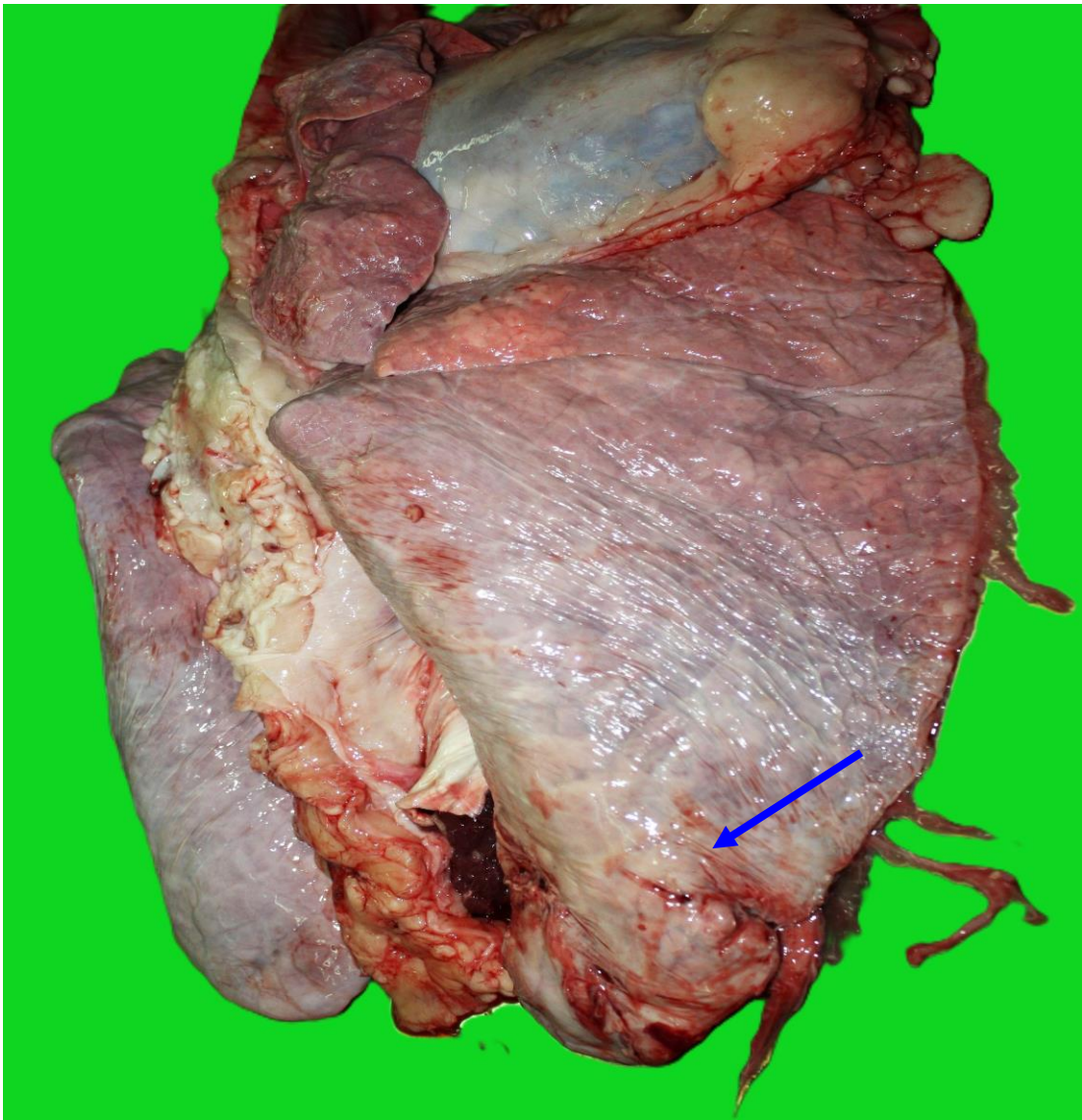




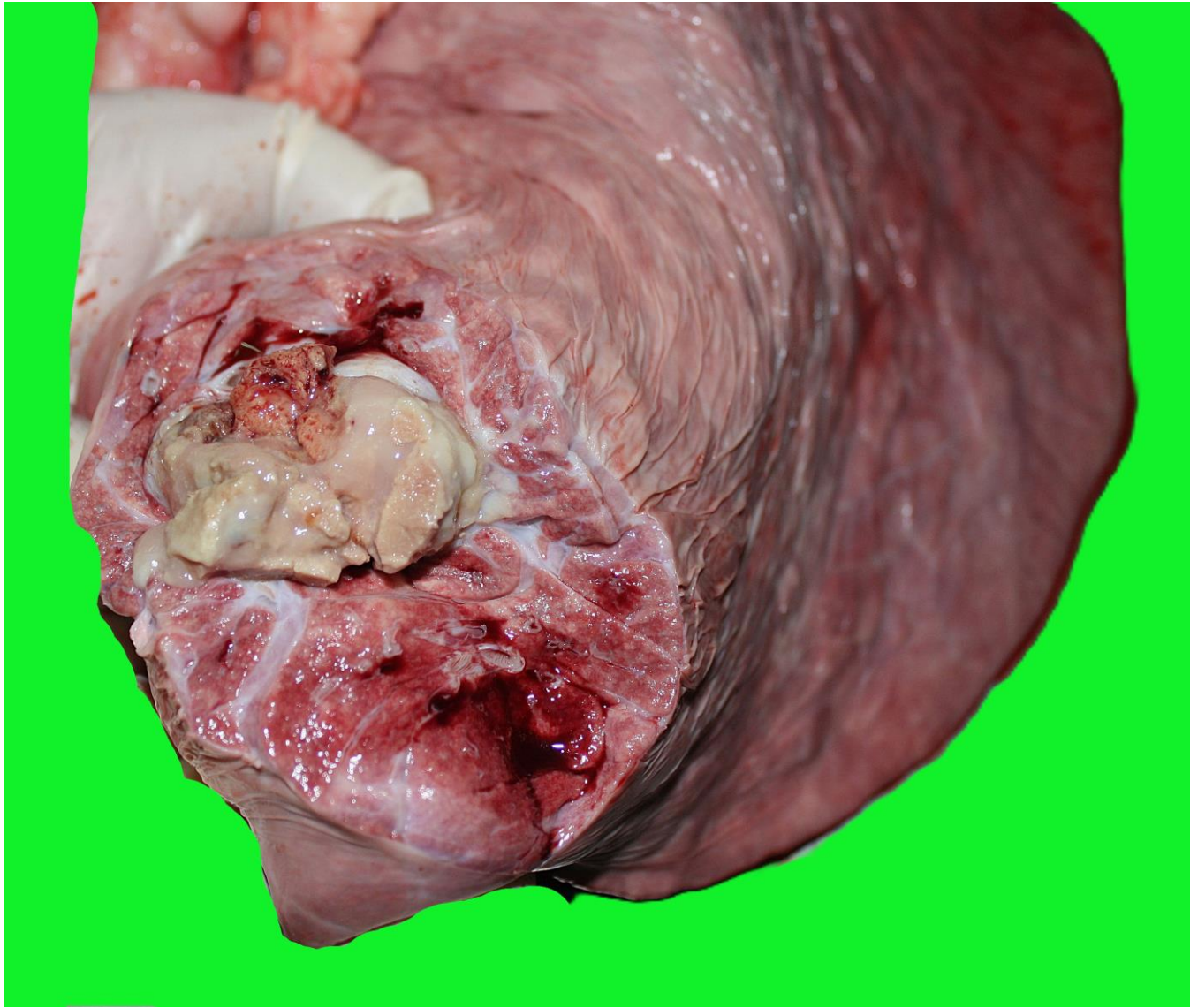
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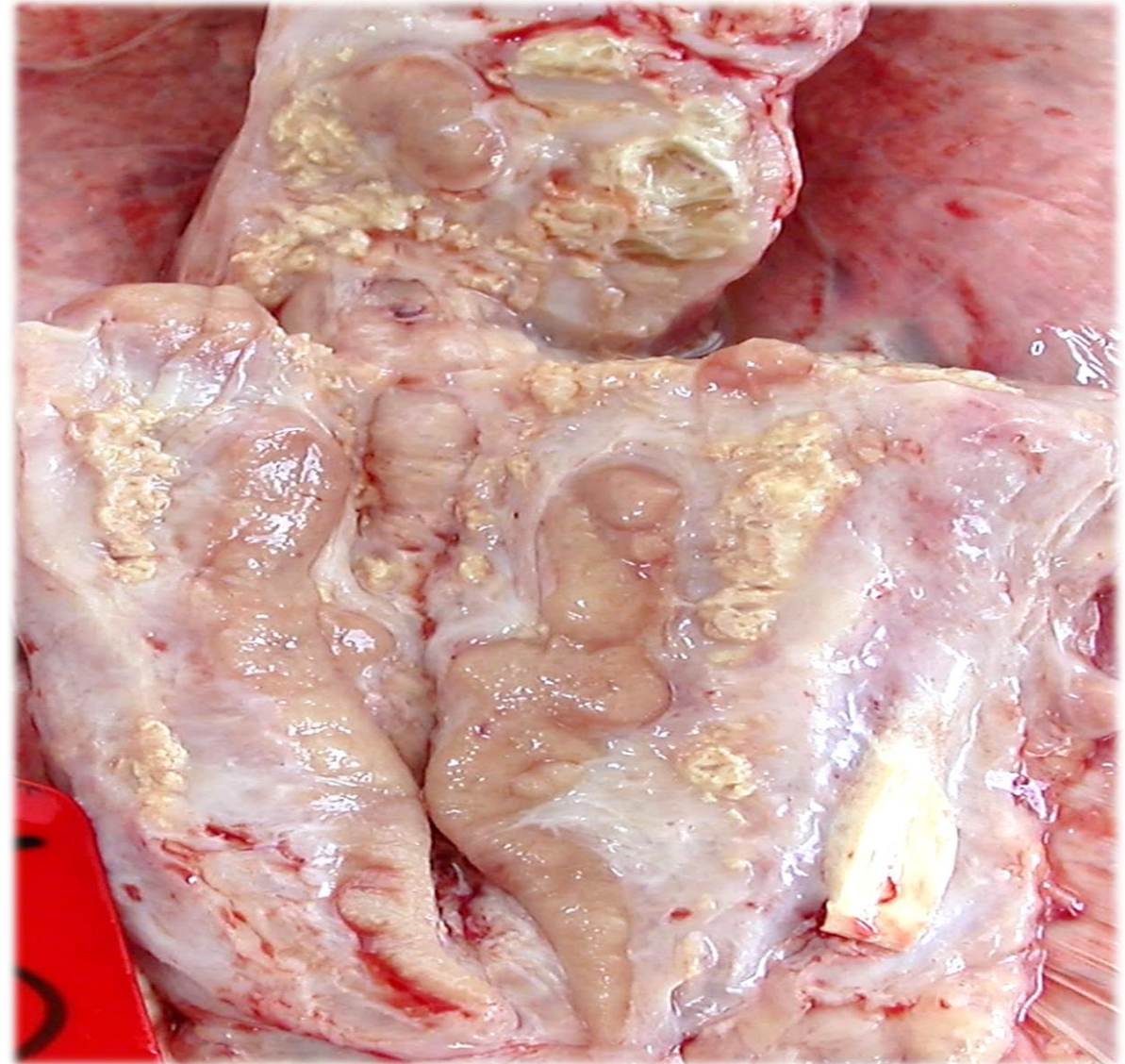
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CONFIRMED CASE

Confirmed when:

- PCR positive
- Culture positive
- Compatible serology

**Lab confirmation recommended but not
always possible and
in my opinion necessary**





PRACTICAL *POST-MORTEM* INSPECTION CHECKLIST TAILORED FOR CBPP



