California Animal Health & Food Safety Laboratory System

Beef Cattle Stuff

Mostly lungs and maybe a few toxic plants

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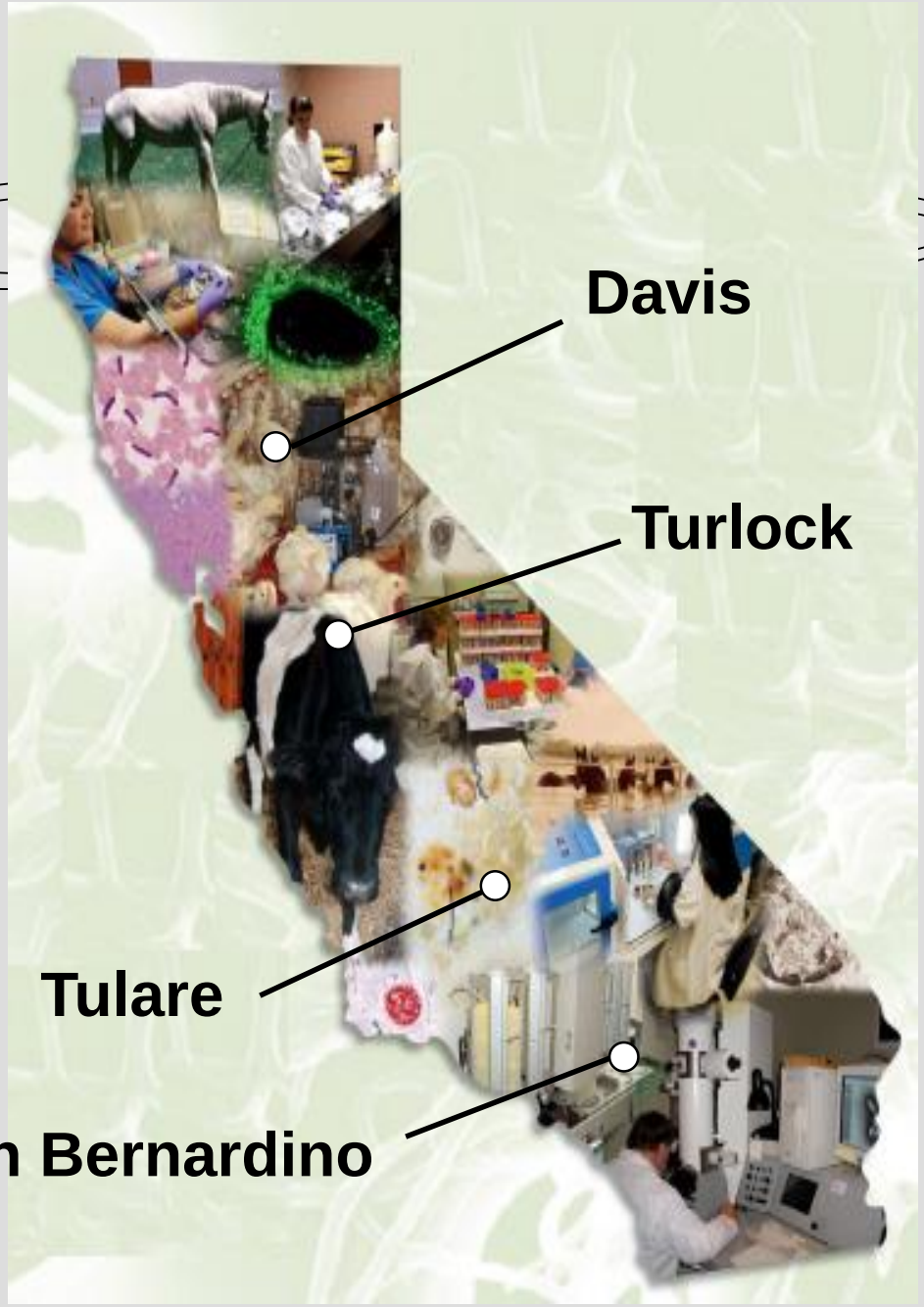
2019 Southern San Joaquin Livestock Symposium
February 2019

Today's 'stuff'

- Overview of CAHFS
- Pneumonia
- A few poisonous plants
- How to help yourself when submitting to the lab

California Animal Health & Food Safety Laboratory System

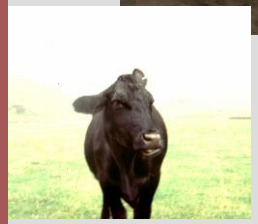
California Animal Health and Food Safety Laboratories are located in:



CAHFS Mission

California Animal Health & Food Safety Laboratory System

Disease Control



Health Management

Food Safety

Public Health

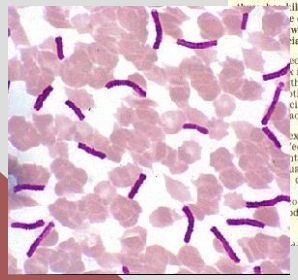

BYRON

Anthrax Kills 35 Cattle in Contra Costa

A rare outbreak of deadly an- illed about 35 head of e eastern Contra Costa wn of Byron, state ials said yesterday.

ctious disease, which ranches in Byron ear- th, was a major health th animals and people cines were developed ades ago.

xperts said veterinari- ected ranchers appear ntained the Byron out- uarantining and immu- cattle. Dead animals buried deep under- ording to state Depart- d and Agriculture offi-



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Equine Health

New Knowledge

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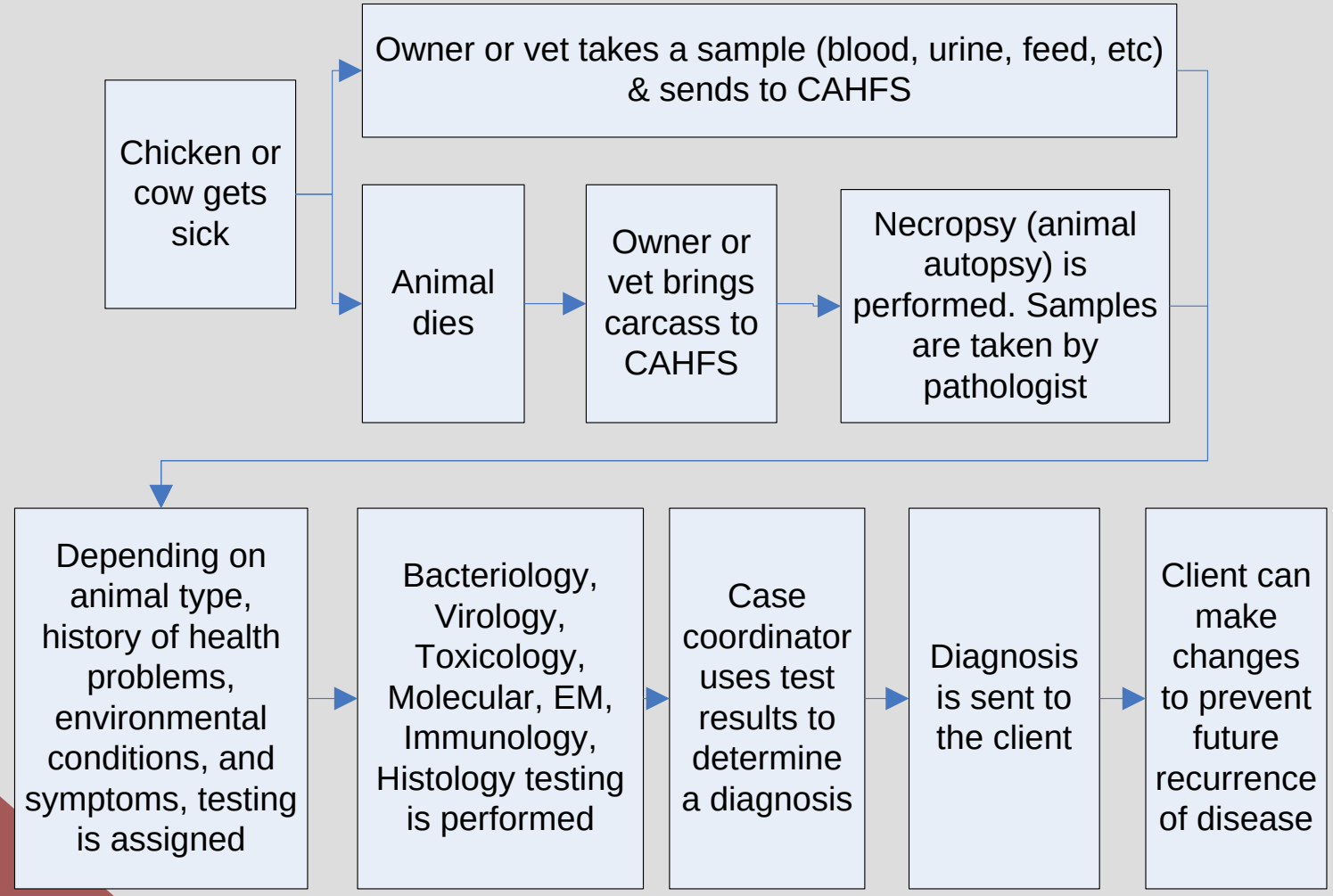
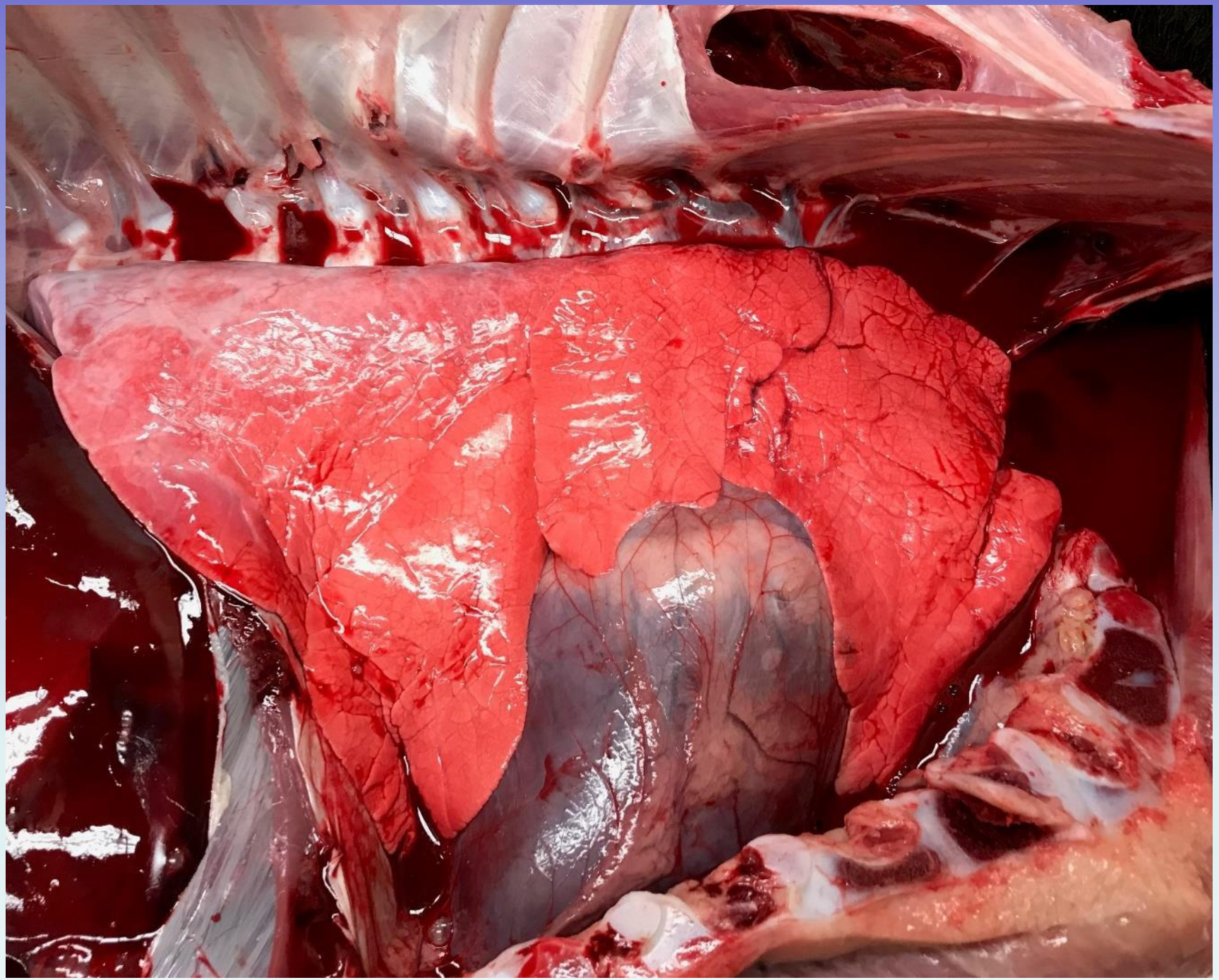
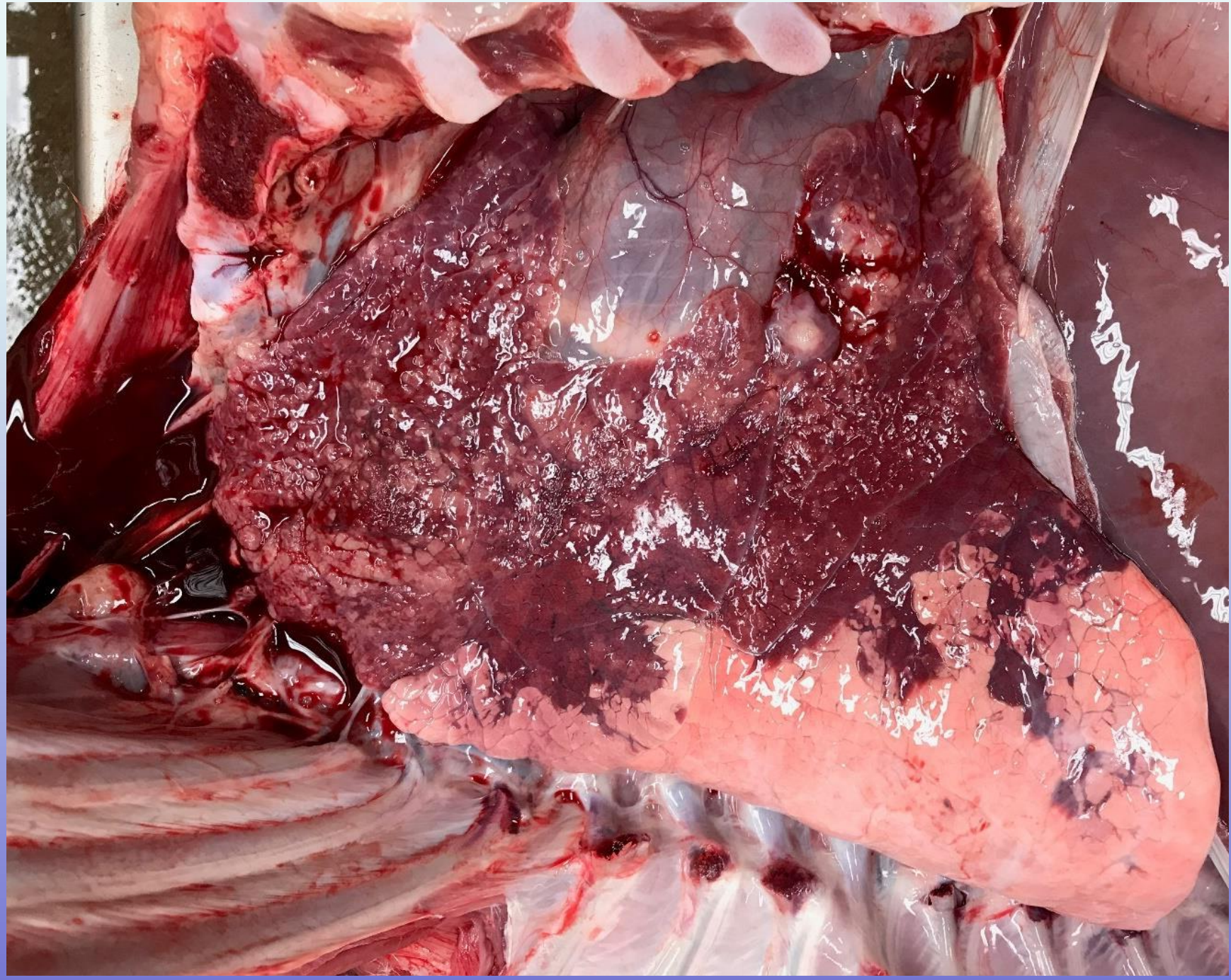
So, how does this work….?

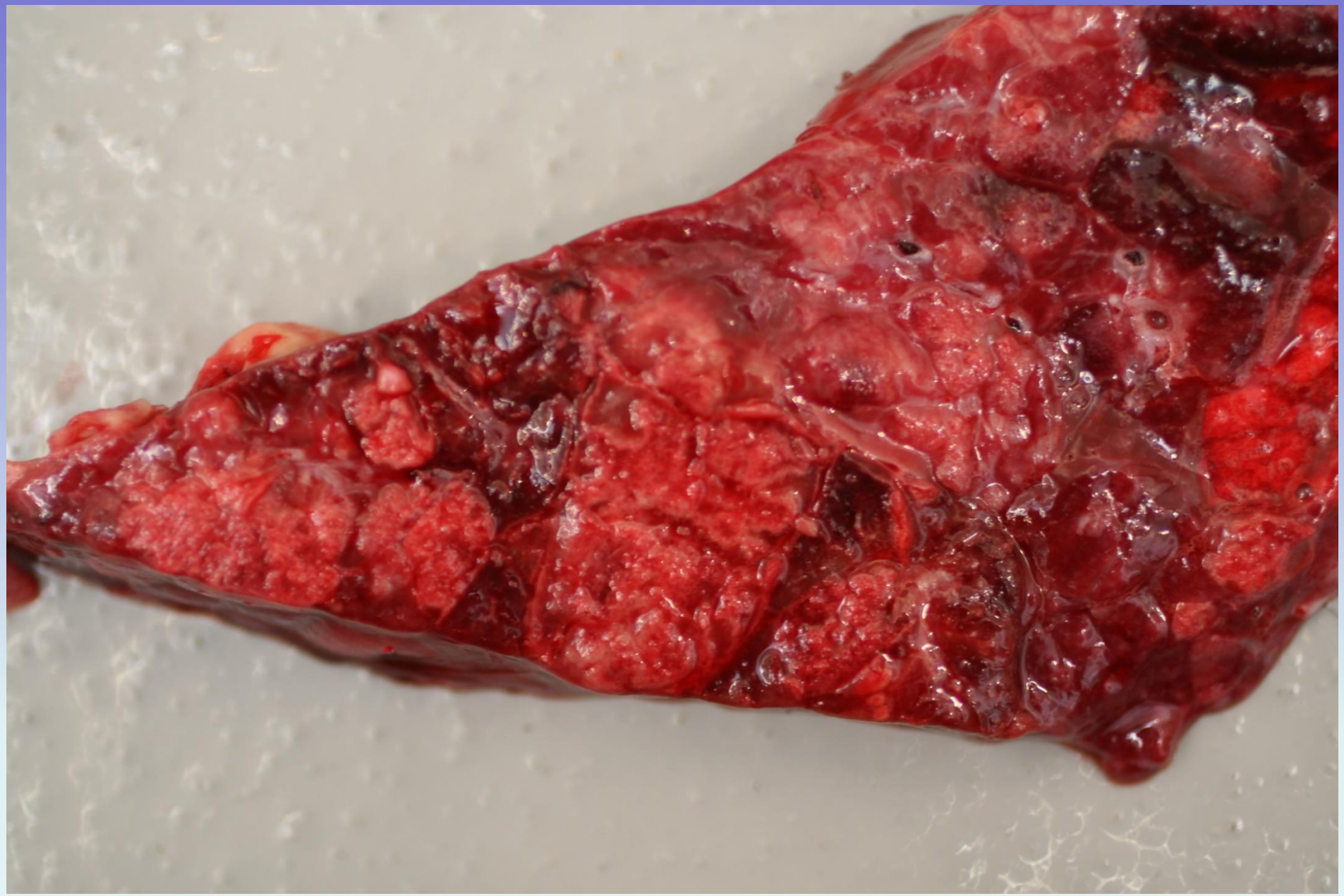


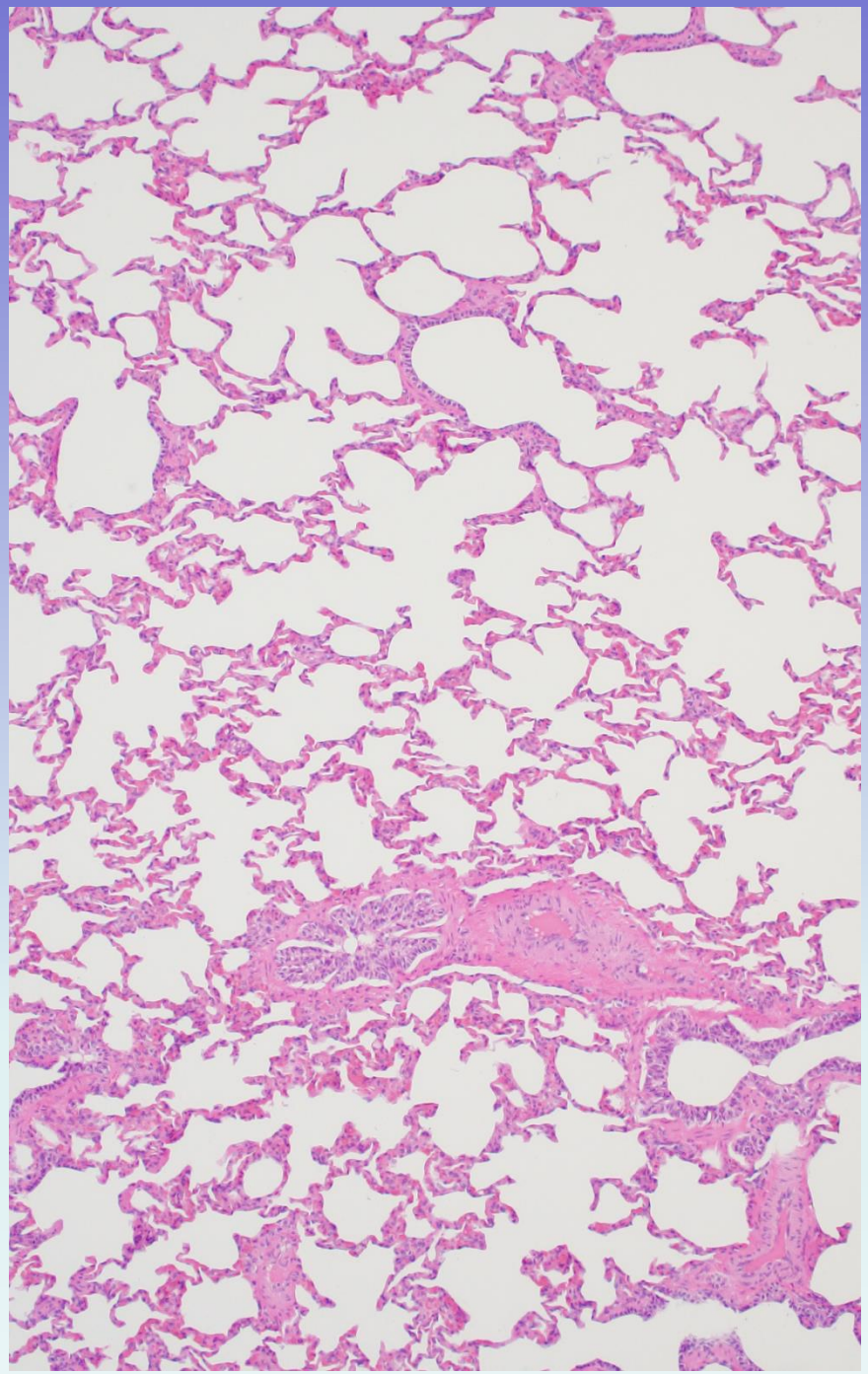
Price changes

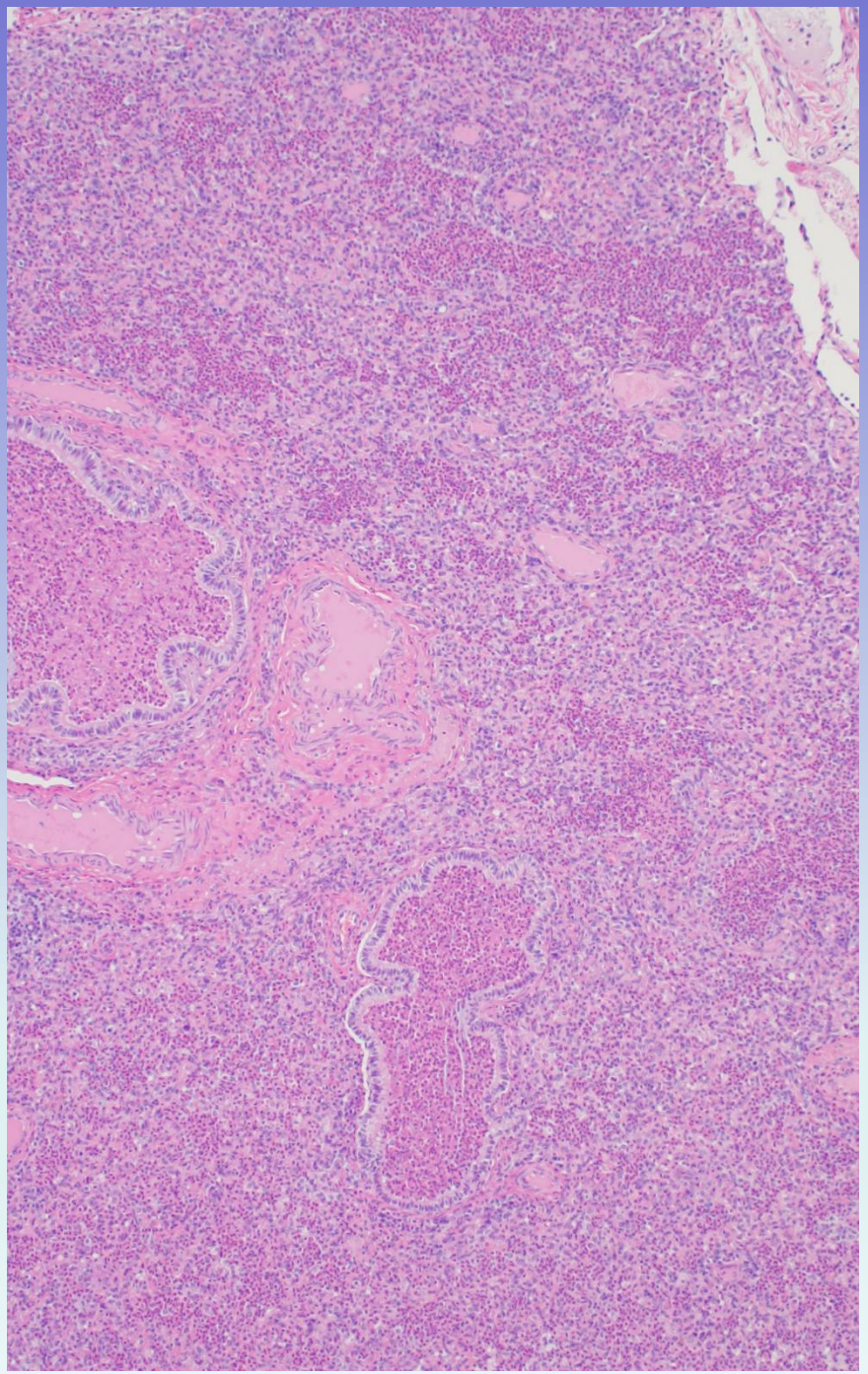
- Feb 1, 2019 Rendering fees:
  - Cattle, Sheep, Goat, Pig ≤ 3 mo no charge
  - > 3 mo of age cattle: $50 ea, others $35 ea.
- April 1, 2019 increased necropsy fees
  - Cattle, Sheep, Goat, Pig ≤ 3 mo of age, up to 3 for $135
  - Cattle > 3 mo of age $140 each
  - Sheep, Goat, Pig > 3 mo of age $135 each

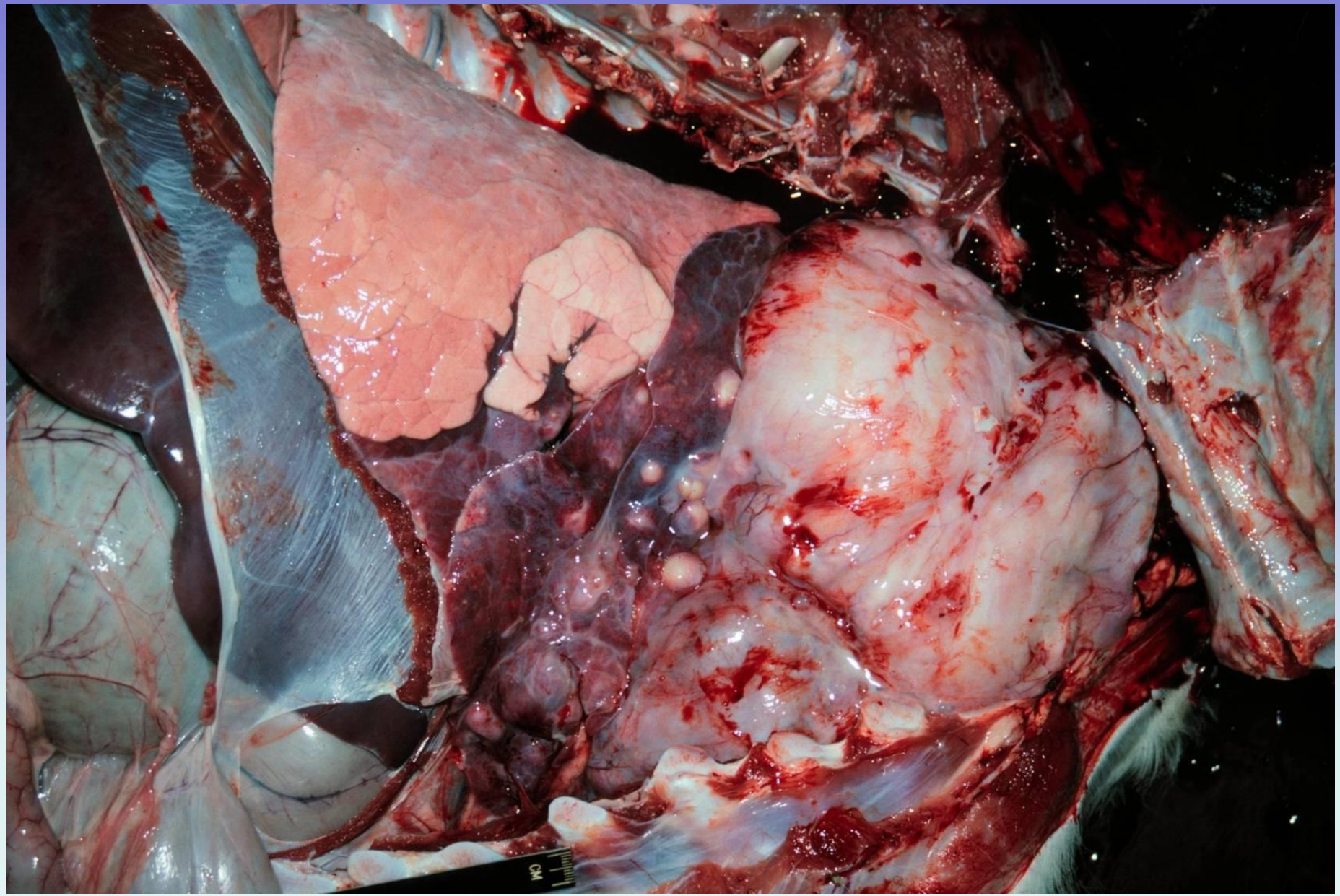


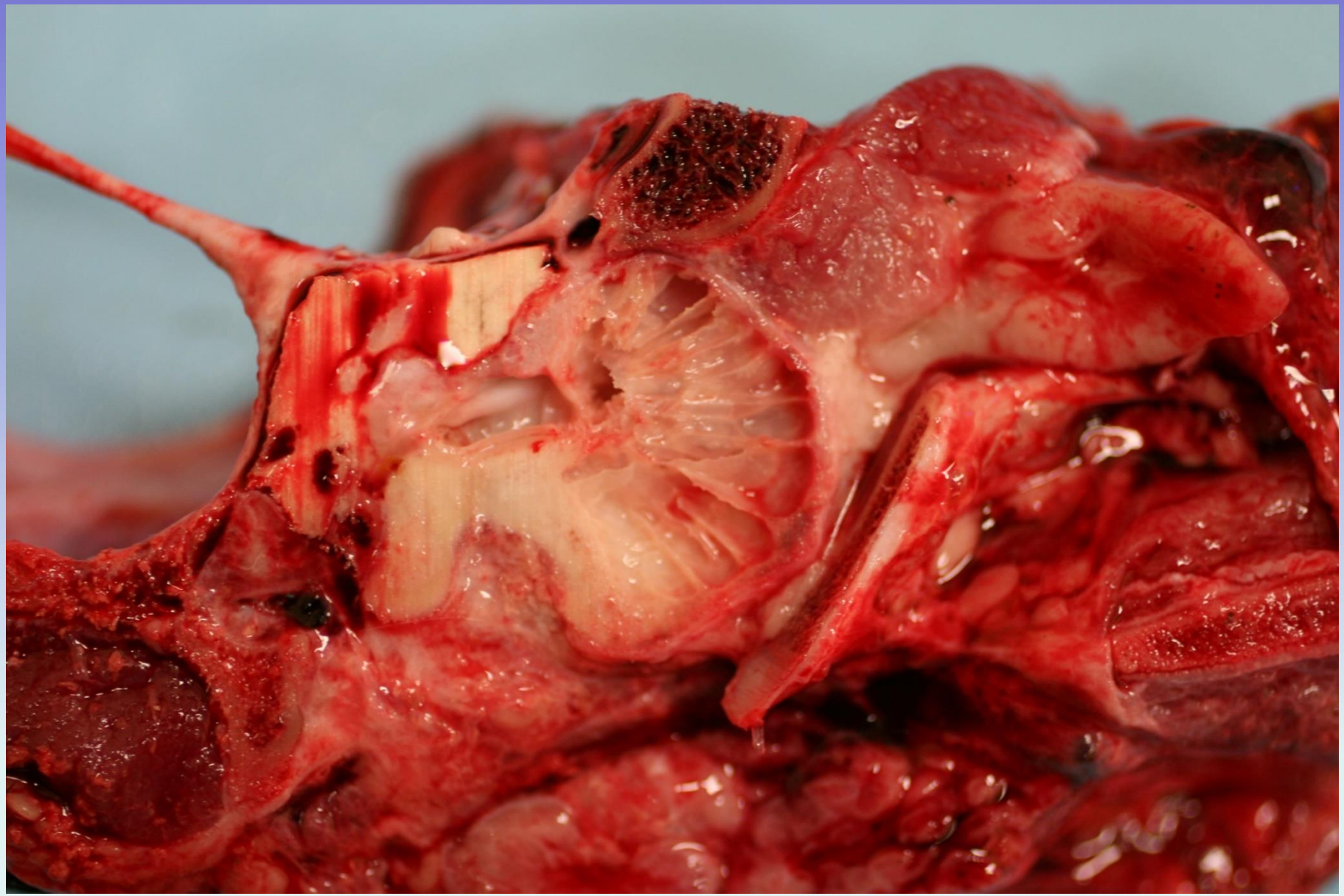


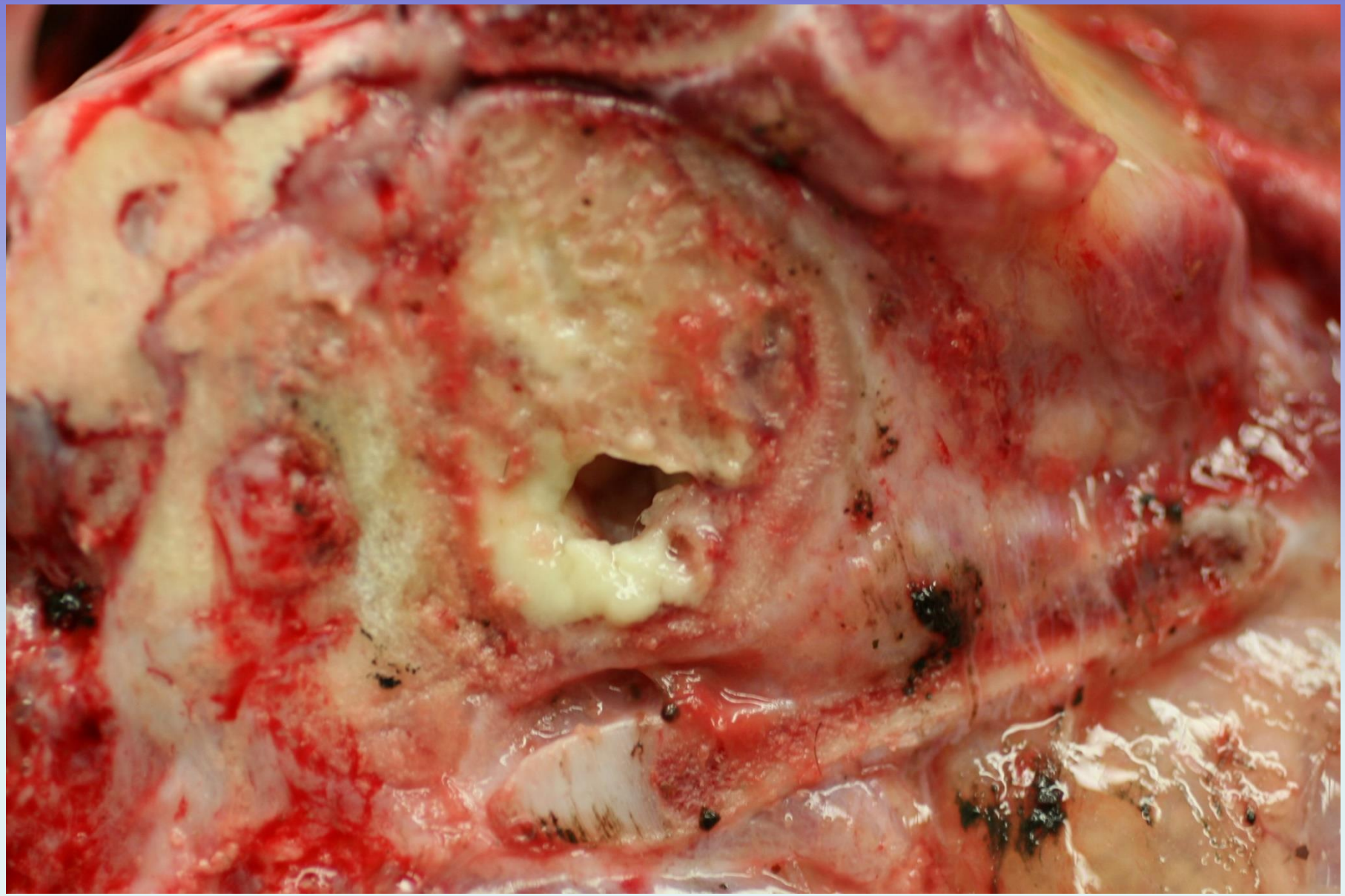


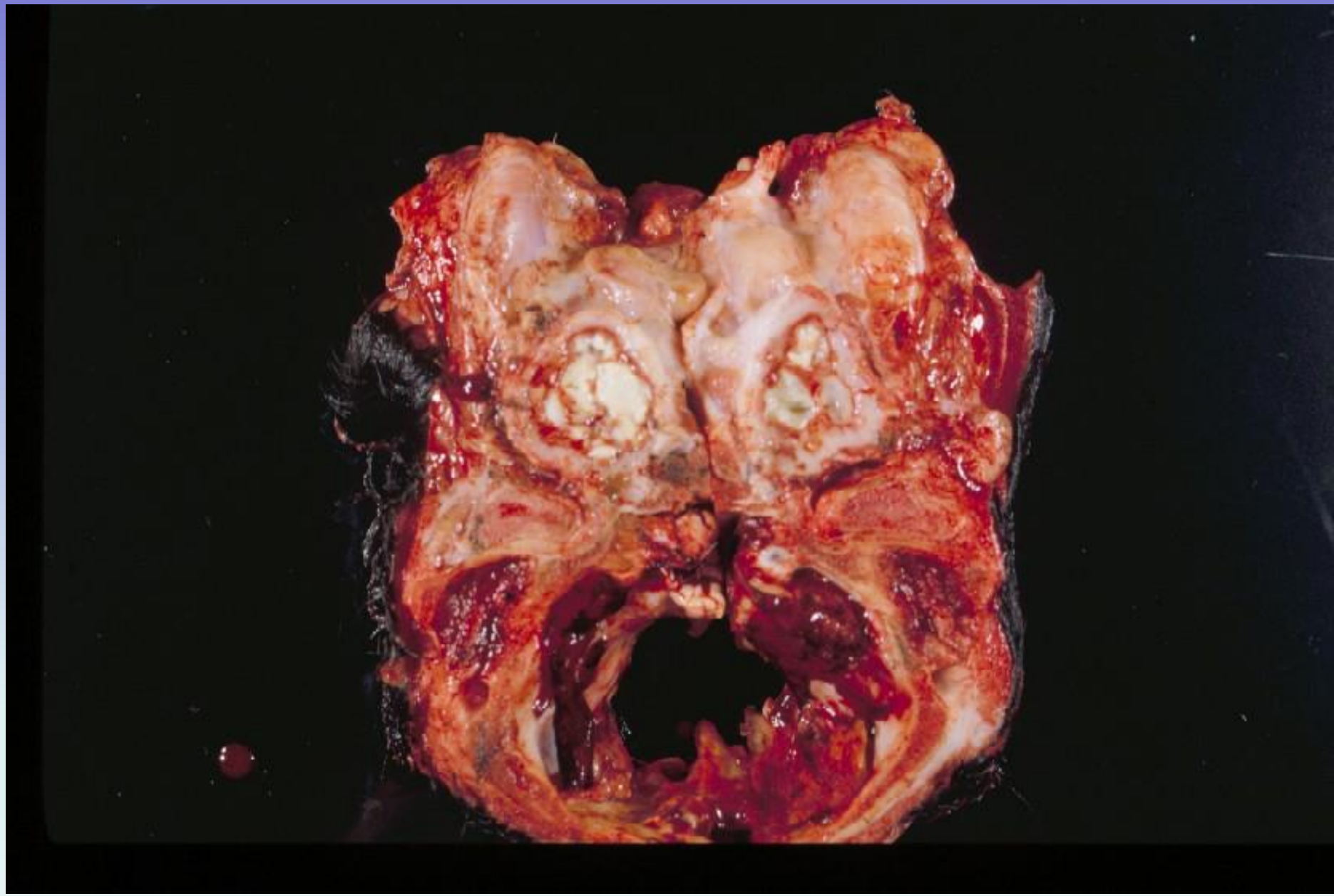


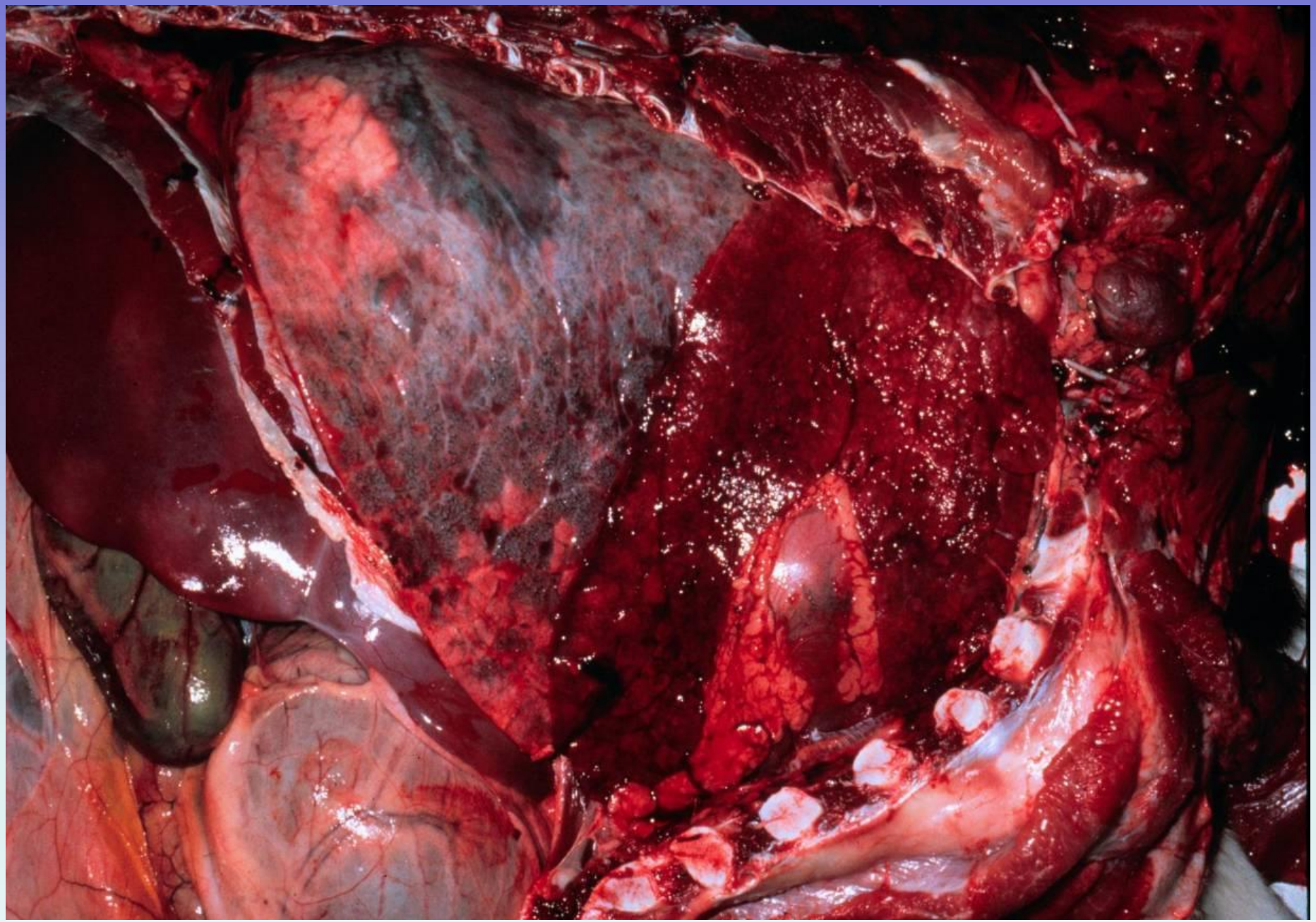












Bacterial Agents

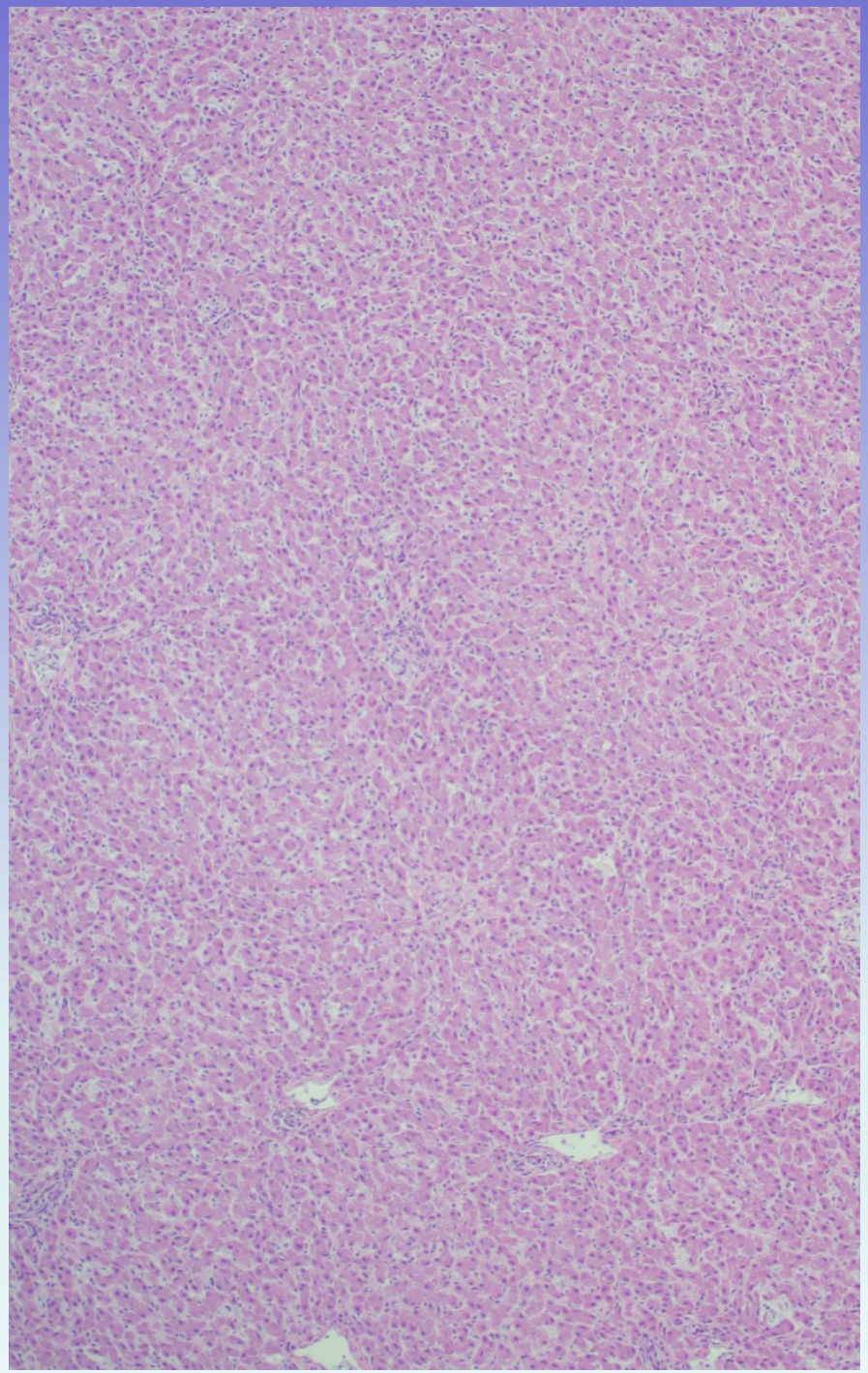
- *Mannheimia haemolytica*
- *Pasteurella multocida*
- *Histophilus somni*
- *Streptococcus suis*
- *Bibersteinia trehalosi*
- *Mycoplasma bovis*
- *Trueperella pyogenes*
- *Others, e.g. Salmonella*

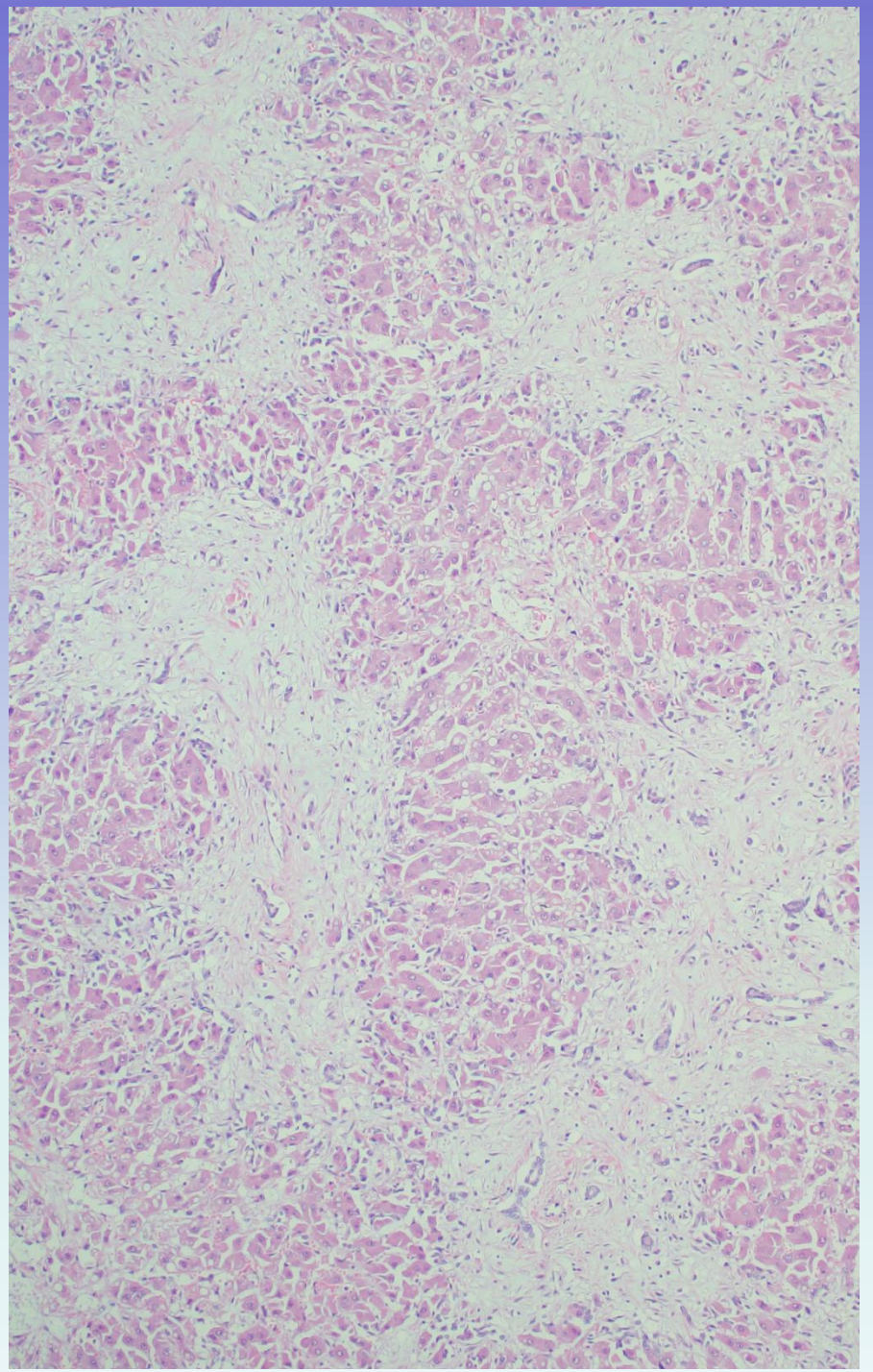
Viral agents

- Bovine Respiratory Syncytial Virus (BRSV)
- IBR (Bovine Herpesvirus 1)
- PI3 (Bovine parainfluenza 3)
- Bovine Coronavirus (BCV)
- BVDv (Bovine Viral Diarrhea virus)

A few toxic plants

- Pyrrolizidine alkaloid containing plants
  - Common groundsel
  - Fiddleneck
- Liver damage
- Time lag to death





Tree Tobacco

- Fast acting
  - Nicotine
  - Anabasine
- Signs
  - Hyperexcitable
  - Muscle tremors
  - Increased heart & respiratory rates

Common Cocklebur (*Xanthium* sp)

Xanthium sp.

Clinical signs:

- Within a few hours after consuming immature plants.
- Depression, weakness, ataxia, vomiting, seizures, hypoglycemia, increased hepatic enzymes (AST, SDH), death hours to days later.
- Postmortem: fluid in peritoneal, pleural and pericardial cavities, fibrin and edema of gall bladder and serosal surfaces
- Microscopic: Hepatic centrilobular necrosis

Xanthium sp.

California Animal Health & Food Safety Laboratory System

Diagnosis of Acute Plant Poisonings

- Find toxic plant in the environment.
- Find evidence of ingestion by the animal.
- Clinical signs and lesions must be compatible with the plant in question.
- Rule out other causes for disease.
- Contact toxicology laboratory for detection of the toxin in samples from the animal (if possible and desired).

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Plant Identification

- Collect entire plant (with root if possible)
- Keep fresh plants refrigerated
- Send a representative sample (not just one little grab sample of hay)
- Take pictures and send them via e-mail
- Contact a veterinary toxicologist
- Save samples from the animal to confirm poisoning after plant identification (such as serum, urine, stomach contents, liver)

How can you help when submitting?

- Call your vet or the lab if you have questions or are unsure of something.
- Submit fresh samples – if the carcass is bloated it is not fresh.
- It is okay to freeze some samples but not others – again, call and ask.
- Make sure to let us know what and when the animal has been treated with – including vaccines.
- History, including clinical signs, duration, new animals into the group, animal movements, feed/water changes, etc are all important.
- Consider submitting an untreated animal.

Questions??