

University of California
Agriculture and Natural Resources

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UCDAVIS
VETERINARY MEDICINE

Herd Health Program

Identification & Examination of Sick Cows

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UC Davis Veterinary Medicine
Dairy Extension Specialist



Goals of a Herd Health Program

- Identification of sick animals
- Examination of sick animals to recognize what is ailing the cow
- Treatment of the sick cows following the herd vet recommendation
- Keep records of all of the disorders and treatments

Early identification and treatment of sick cows

- Reduce the cost of the disease (drugs and milk production)
- Increase the chances for a full recovery
- Improve animal welfare
- Reduce elimination of cows, especially fresh cows

Outline

- Who gets examined?
- How to examine sick animals?
- What conditions can be identified after the detailed examination?
- What cows need additional tests?

Based on Dr McGuirk UW- Madison

http://www.vetmed.wisc.edu/dms/fapm/fapmtools/transition_cow.htm

Who gets examined?

List of Cows to be Examined





Calving Difficulty



Twins



RP



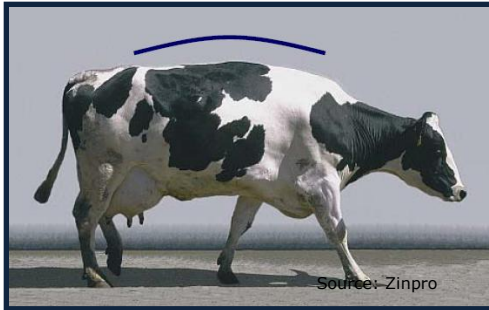
Abnormal Uterine
Discharge



Diarrhea



Unlocked Cows



Abnormal Gait



Abnormal Rumen Fill



Dehydrated



Abnormal Appetite



Ocular Discharge



Nasal Discharge



Abnormal Udder



Drop in Milk



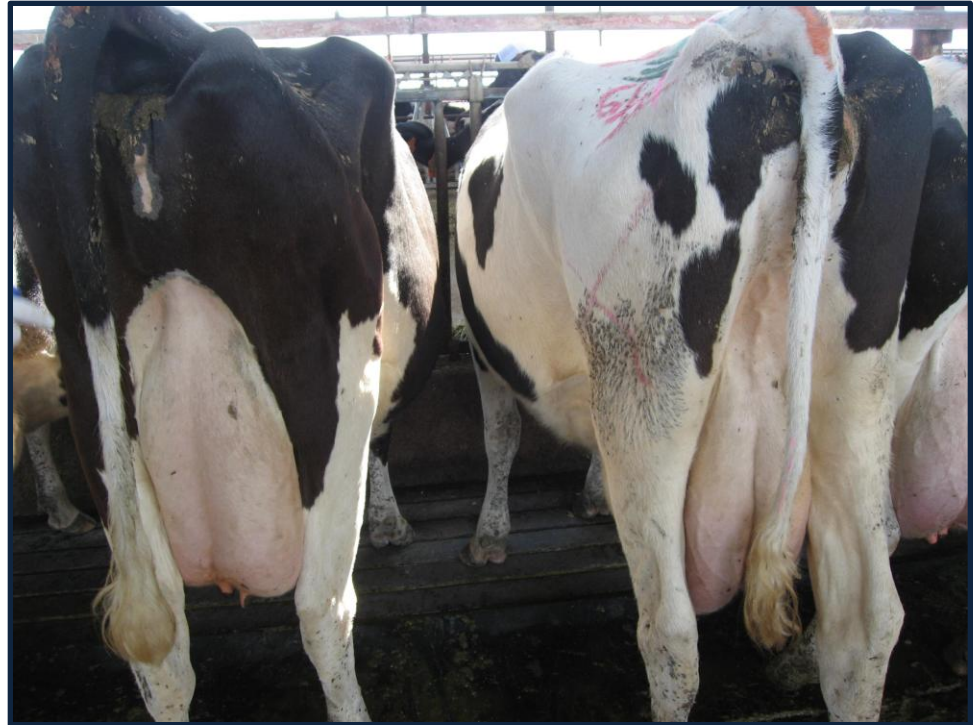
Fever



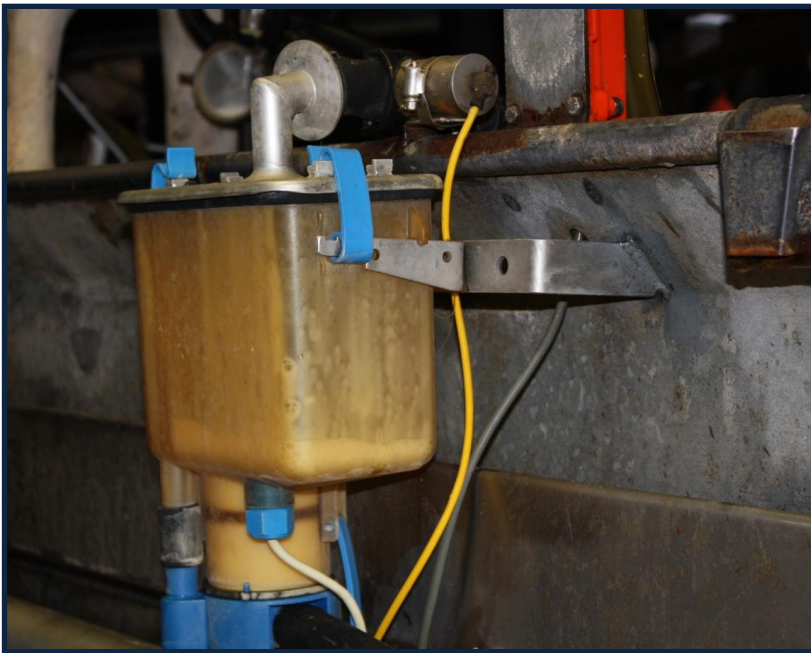
Identifying Cows

- 1. Check Records**
- 2. Walk Through the Fresh Pen
(front and back)**
- 3. Observe when Milking, Feeding,
Breeding and Pushing Cows**

1. Check Records



Milk Weight Deviation



10 lb drop – why?

Milk production during the first 14 DIM (Overton, 2001).

Cows - 10% daily milk increase

Heifers - 8% daily milk increase

2. Walk Through Fresh Pen



Walk Through **Front**



Appetite



- Are the cows eating, sorting or not interested in feed at all?
- At lock up, check for undisturbed feed sitting in front of the cow.
- Before releasing the cows from the lock-ups, check for cows that consumed feed at a lower level than their neighbors

Attitude

- Are the cows curious about you?
- Are the cows moving their ears?



Ears



Source: CRI Dairy Herdsman Videos

- Droopy ears – sick cow that is depressed, in pain or with fever.
- Cold ears – decrease blood flow to the periphery. Associated with milk fever, acidosis or toxic states.

Eyes



- Sunken eyes – dehydration.
- Abnormal discharge.
- Lesions - trauma or pink eye.

Source: CRI Dairy Herdsman Videos

Nose

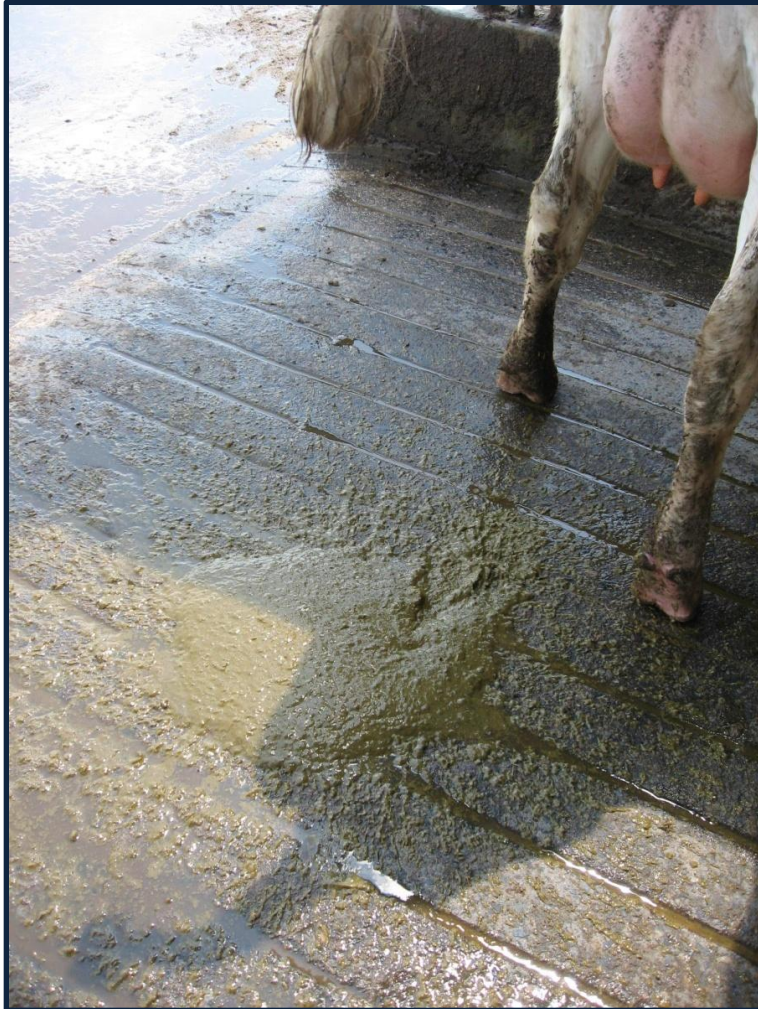


- Abnormal discharge – sick cows are too depressed to groom their noses.
- Color of abnormal discharge (pneumonia/acidosis)
 - Bloody
 - White
 - Yellow
 - Green
- Cough – Note if 2 or 3 times during observation
- Dry nostrils – fever

Walk Through **Behind**



Diarrhea



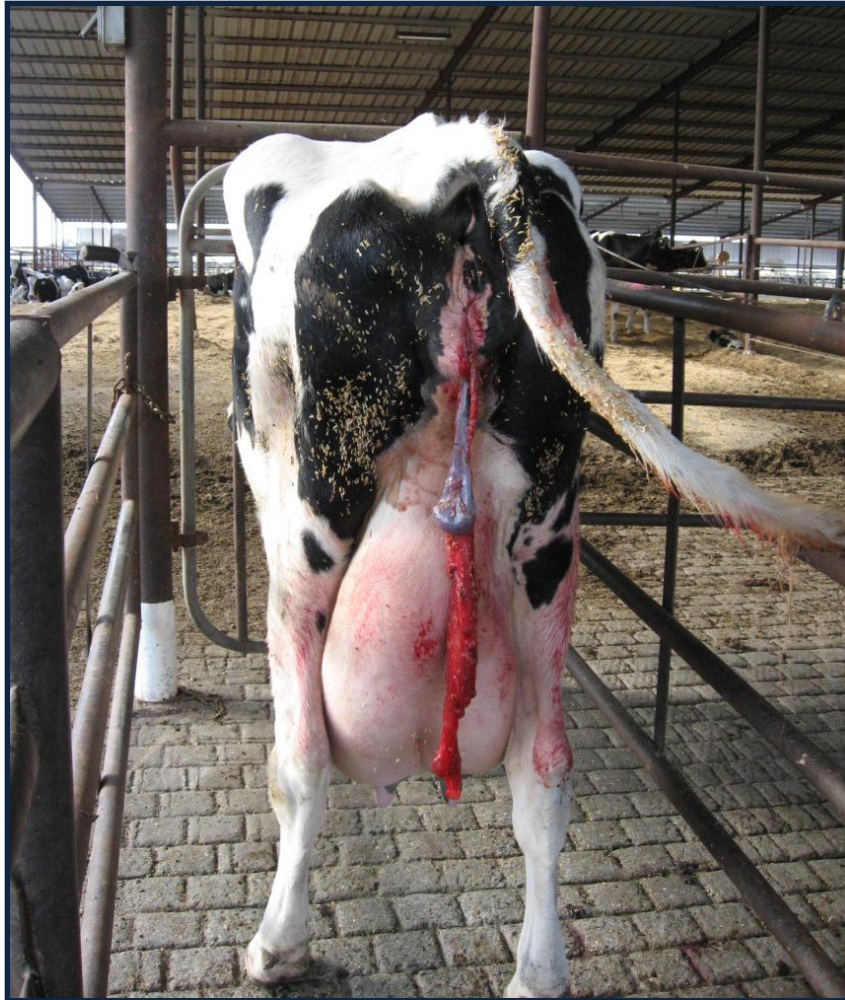
- Check the tail and vulva for indication of diarrhea
- Check the floor if manure is too loose to make a pile
- Check the color (dark) and smell (fetid)
- Acidosis, digestive upsets, toxic diseases or enteritis.

Abnormal Vaginal Discharge



- Is there abnormal vaginal discharge?
- Is the vaginal discharge foul-smelling?

Retained Fetal Membranes



- It is not a health problem, but increases the risk of metritis.
- Is the vaginal discharge foul-smelling?

Abnormal Posture



- Tail away from the body: irritation in the perineal region, vagina, rectum or severe metritis.
- Abduction of elbows: pain in the thoracic region.
- Arched back: peritonitis, severe lameness.

Abnormal Breathing



- Inspiration or expiration requires abnormal effort.
- Pneumonia, bloat and toxic diseases may cause difficult breathing.

Abnormal Abdomen

- Rumen Fill – rumen tucked in when anorexia.



- Distended abdomen – cows bloated.



Abnomal Udder



- Unbalanced Udder
- Edema
- Abnormal Color (reddish, bluish)
- Ligament Damage
- Udder fullness

Cows that did not lock up



Check Beds





3. Milking, Moving, Breeding and Feeding Cows

Milking Parlor



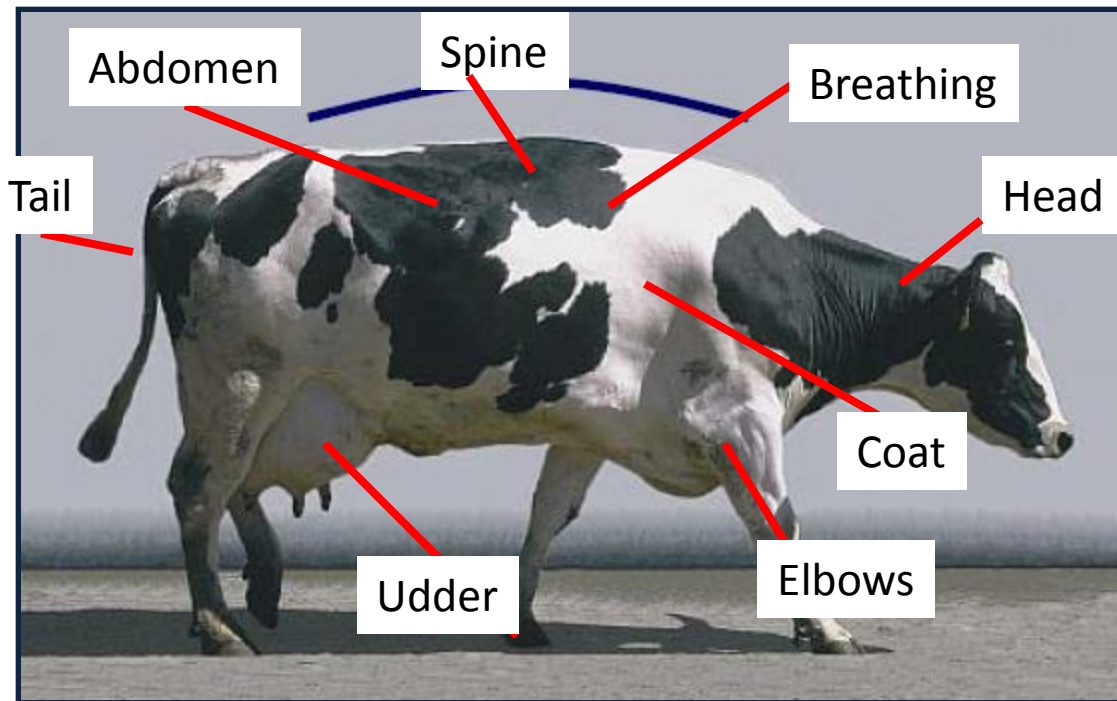
- Note swelling quarters and discolored udders
- Udders fullness: prior to milking (too baggy) or after milking (swollen)
- Strip some squirts of milk to identify clinical mastitis
- CMT

Moving Cows



Source: CRI Dairy Herdsman Videos

General Appearance and Posture



Source: Zinpro

- Is the spine arched?
- Are the elbows abducted?
- Is the tail away from the body?
- Is the hair coat scruffy?
- Is the head down?
- Is the cow lame?

Breeder



Observe:

Udders

Rumen fill

Cows that did not lock

Lame cows

Feel:

Cows' temperature

Rumen fill

Source: CRI Dairy Herdsman Videos

Feeder



Cows reluctant to move when fresh feed is delivered.

Source: CRI Dairy Herdsman Videos

EXAMINATION

Equipment

Thermometer

Cups (milk, urine, feces)

Blood tubes

Sharpie

Ketone strips

Stethoscope

Chalk

Milking Gloves

Obstetrical lube

Alcohol pads

Towels/wipes

CMT paddle, CMT solution
and teat dip

Complete Examination

Always perform a complete evaluation even when the present complaint is easily recognizable:

- ☐ Provides information that is used to assess the health status of the patient.
- ☐ Helps to determine which additional diagnostic test must be performed.
- ☐ Additional information gathered during the examination may reveal disorders other than the present complaint.

Cow's Vital Constants

- **Temperature:** (100.4 (38) - 102.5 (39.17))
- **Pulse:** 60 – 84 beats/min
- **Respiration:** 15 – 35 breaths/min
- **Rumen contraction:** 1- 2 cont./min

Source: Large Animal Internal Medicine, by Bradford Smith

Fresh Pen - Sick Cow Scoring Results

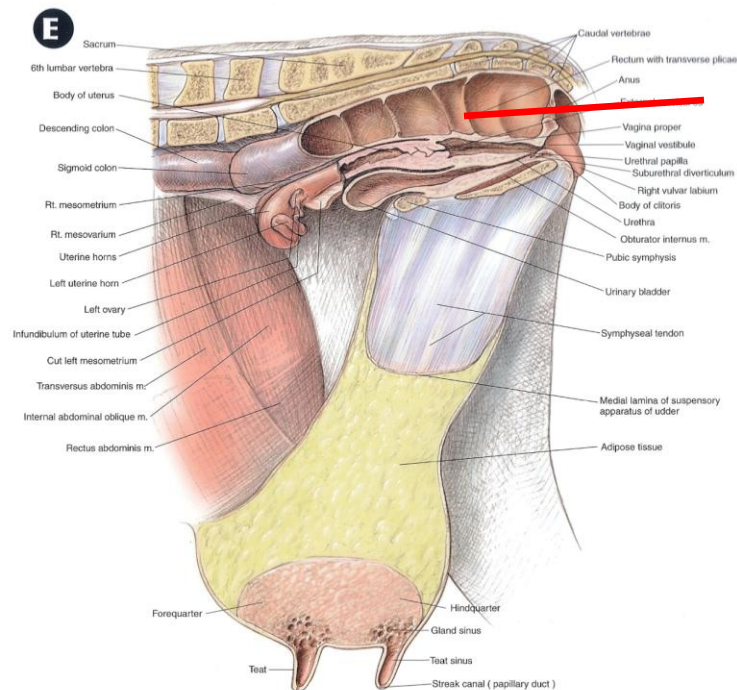
Fresh Pen - Sick Cow Scoring Results															
Herd Name:			Example Dairy											Date:	
#	Cow ID	DIM	Reason(s) for exam: ¹	Temp	Diarrhea?	Foul-Smelling Vaginal Discharge?	Abnormal Rumen? ²	Abnormal Udder?	Cough?	Abnormal Nasal Discharge? ³	Lame, Injured, Down?	Tests Needed, Results: ⁴	Diagnosis ⁵ (enter in record)	Treatment (enter in record)	
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⁴ Possible Test Results: Ketone test (milk or urine) if abnormal rumen, off-feed, no other diagnosis; ping for DA if off-feed, abnormal rumen, no other diagnosis; CMT if abnormal udder; Milk culture if temp + abnormal udder; Fecal culture if fever + diarrhea (Enteritis).															
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Rectal Temperature



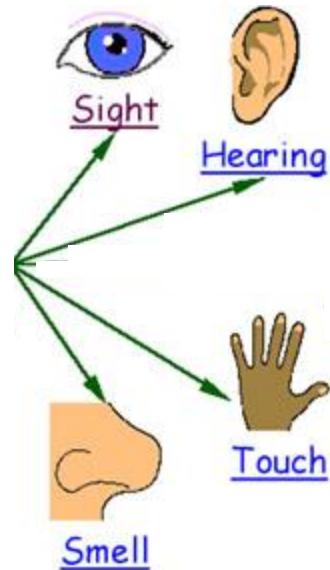
Fever: >103 F or >39.4 C

In summer months 104 F (40 C) can be normal.
Check 4-5 healthy looking cows and add 1.5 to 2 F more.



- The thermometer should be placed in the rectum touching the walls but not feces or air.
- Factors affecting temperature: ambient temperature, time of the day, depth penetration, calibration.

**4
Senses**



**Use your
senses while
checking
temperature**



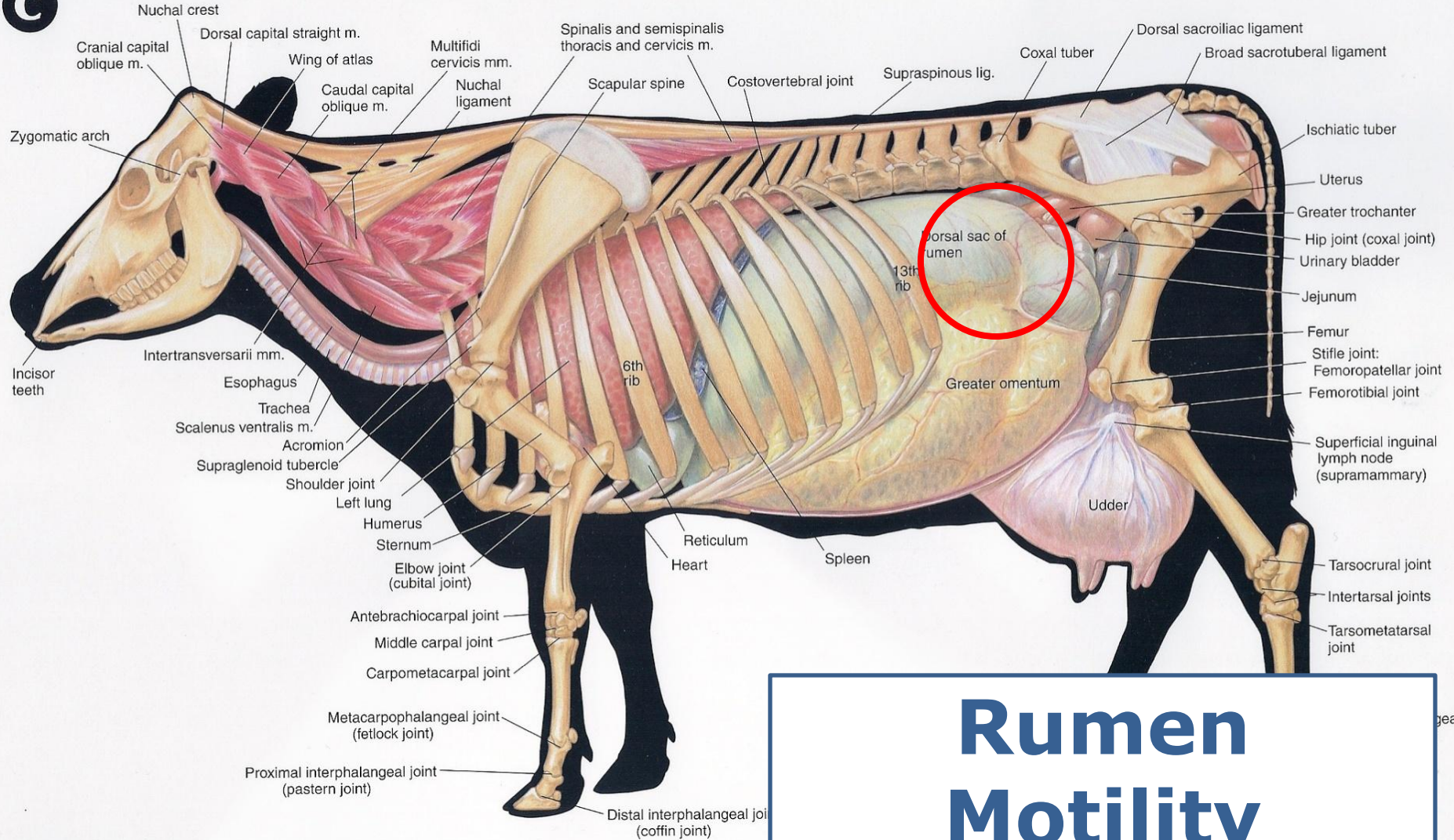
Place firmly your fist on the left flank and check the rumen activity.

The rumen contraction should be strong enough to displace your fist.

In a normal cow, rumen will contract one or two times per minute.

Touch

C



Rumen Motility

Bovine Anatomy: The Cow by Anatomical chart company, Shokie, Illinois-



Observe



Manure Consistency

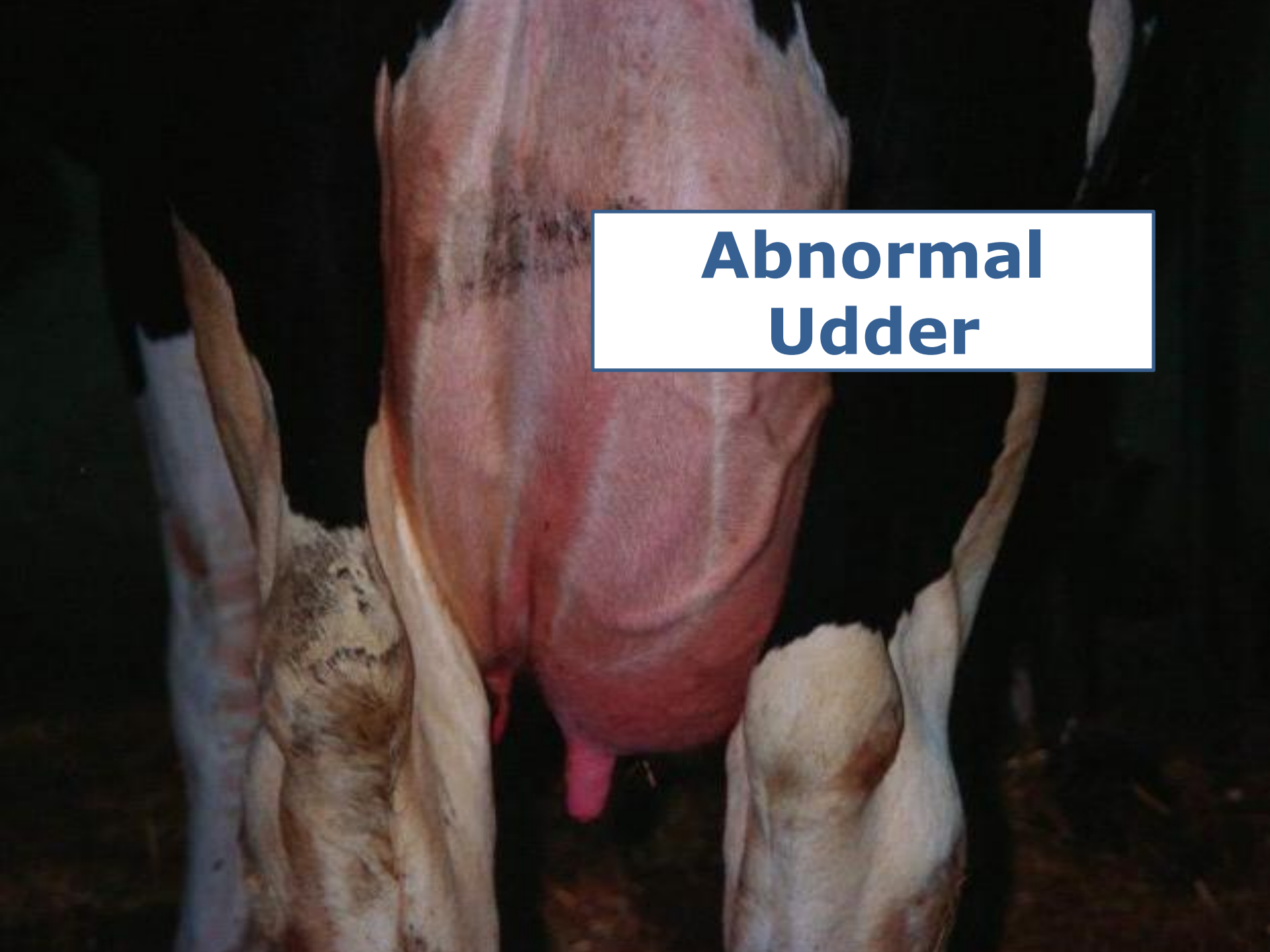


Manure Color

Source: CRI Dairy Herdsman Videos



Vaginal Discharge

A close-up photograph of a cow's udder. The udder is a large, pinkish-red, fleshy mass. It appears significantly swollen and inflamed, with a bright red, almost raw-looking surface. The surrounding skin is a lighter, mottled brown and white. The cow's legs are visible on either side of the udder, and the background is dark and indistinct.

Abnormal Udder



**Injured or
Lame**



Injured Vulva



Smell



Foul smell

Listen

- Breathing Difficulties
- Coughing



Fresh Pen - Sick Cow Scoring Results

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Completing the fresh
cow scoring sheet

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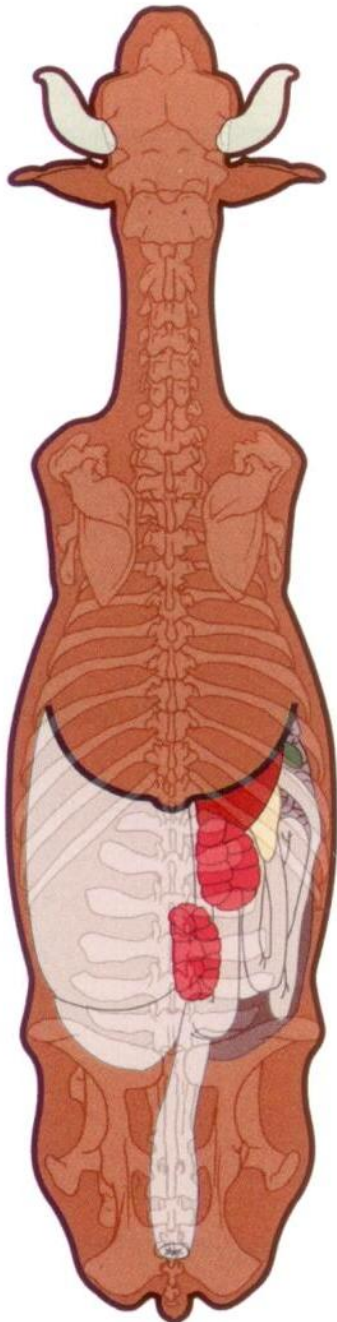
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Rectal Examination

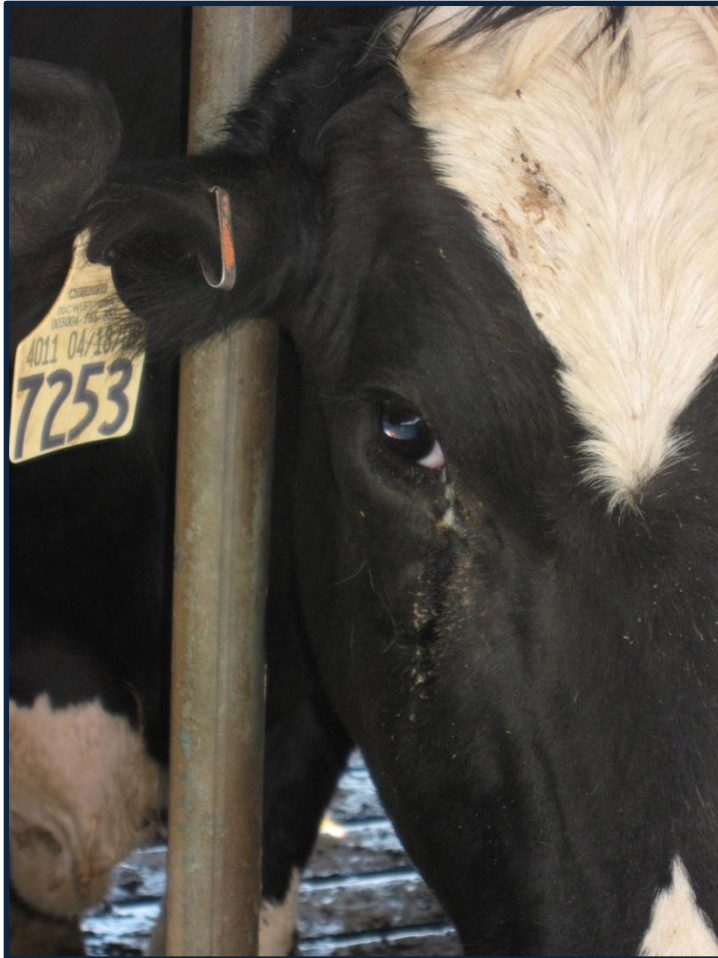




- Uterus and ovaries
- Rumen content
- Any bowel distention
- Consistency of manure
- Fever

Source: La exploracion clinica del ganado vacuno

Eye, Ear and Nose Examination



- Eye: sunken, crusty, abnormal secretions.
- Nose: cleanliness, dryness, abnormal secretions.
- Ears: position, temperature.

Dehydration

- Normal hydration: Skin returns to normal in < 2 seconds.
- Severe dehydration: Skin returns to normal in > 6 seconds.



Fresh Pen - Sick Cow Scoring Results

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Milk Fever



- Cow 0 to 3 DIM
- Cow down, trembling or wobbly
- No fever or calving injuries

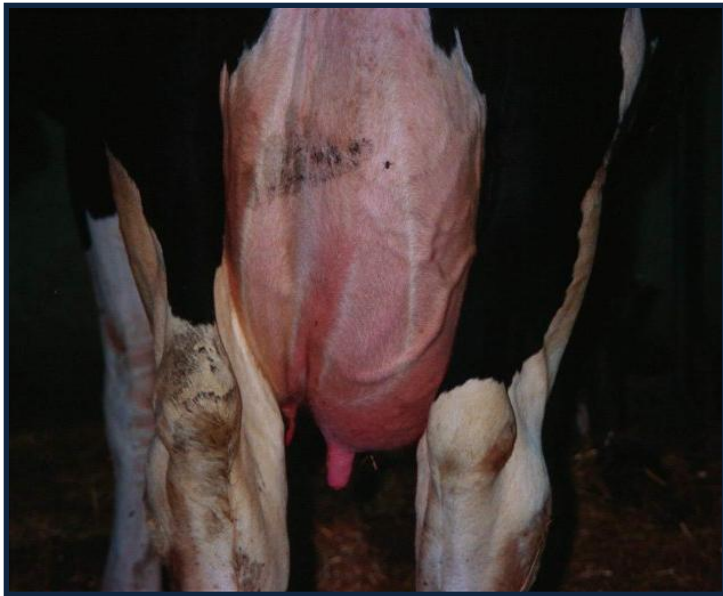
<http://faculty.ksu.edu.sa>

Metritis



- Fever
- Foul smelling vaginal discharge

Mastitis



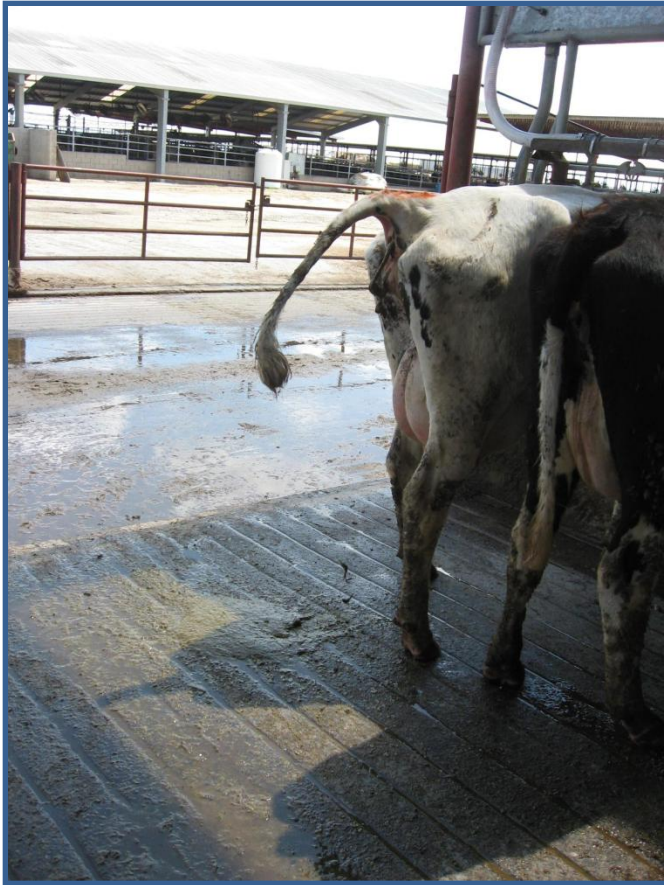
- Abnormal udder
- Fever

Respiratory Problems



- Fever
- Cough
- Nasal Discharge

Enteritis



- Watery diarrhea, loose manure with blood
- Fever
- No other diagnosis explains the manure

Injury / Lameness



- Difficult calving or calving injury
- Not able to get up
- Rear legs want to spread-eagle

ADDITIONAL TESTS

Ketosis

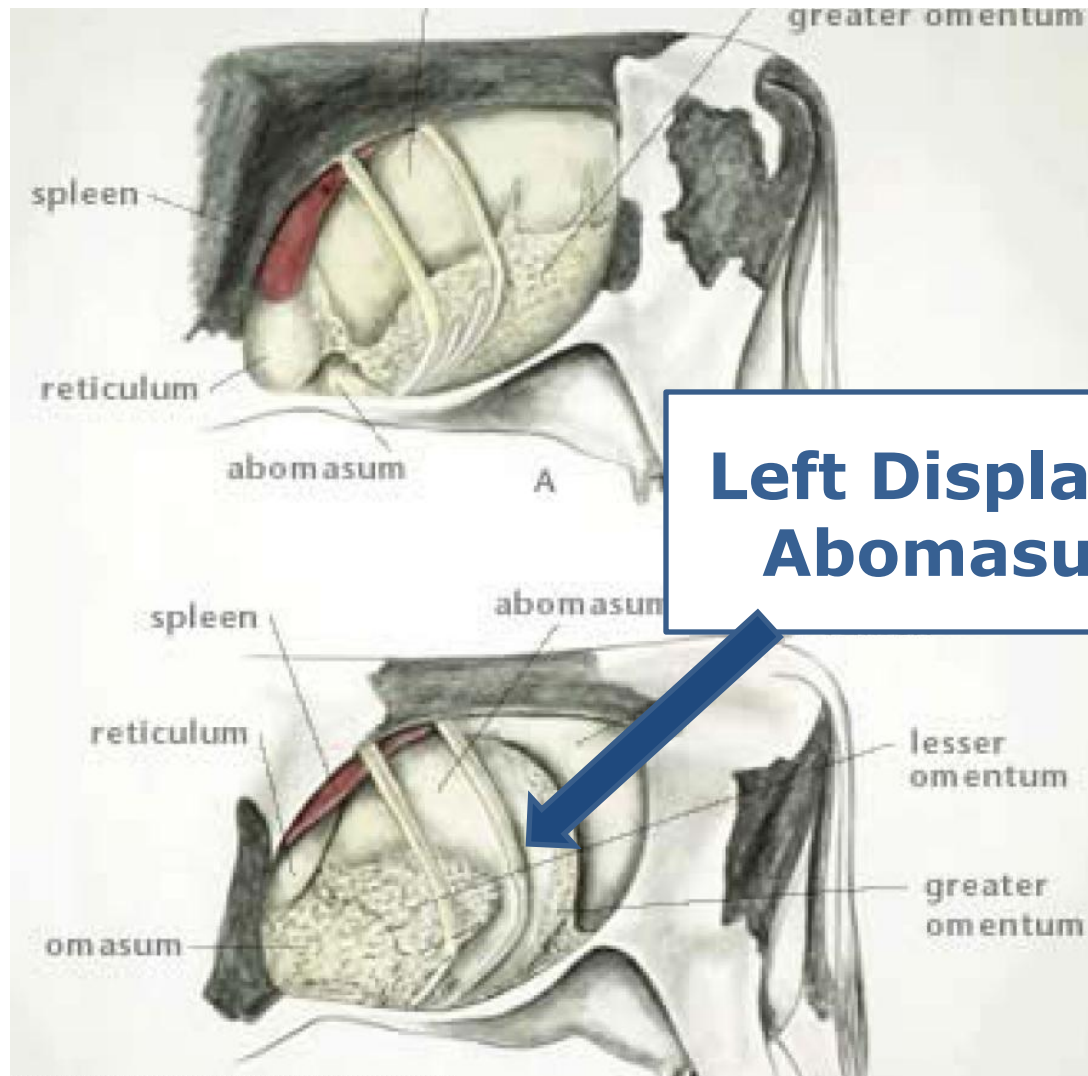
Abnormal Rumen
Cow Off-feed
No other diagnosis is found



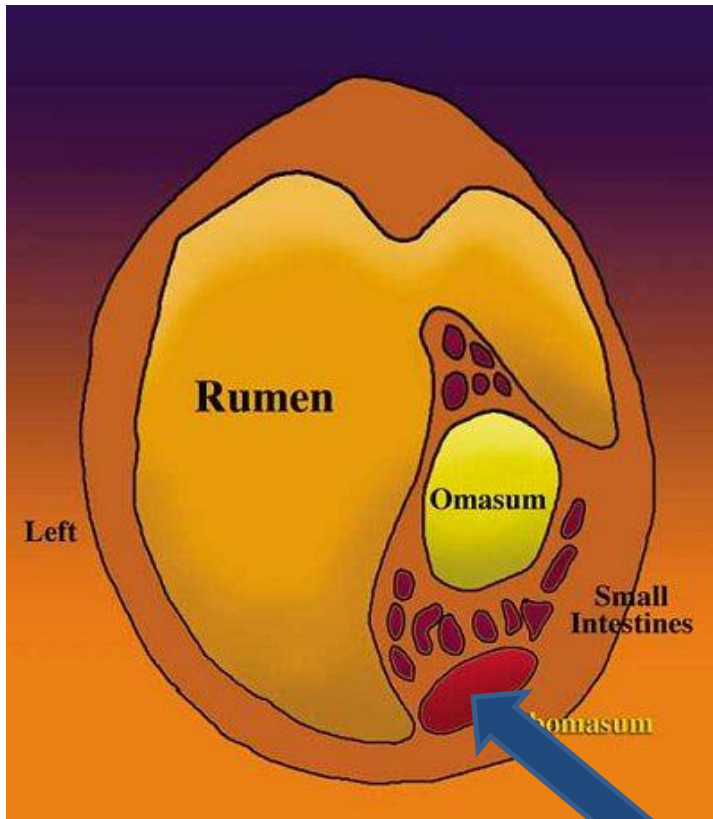
Displaced Abomasum



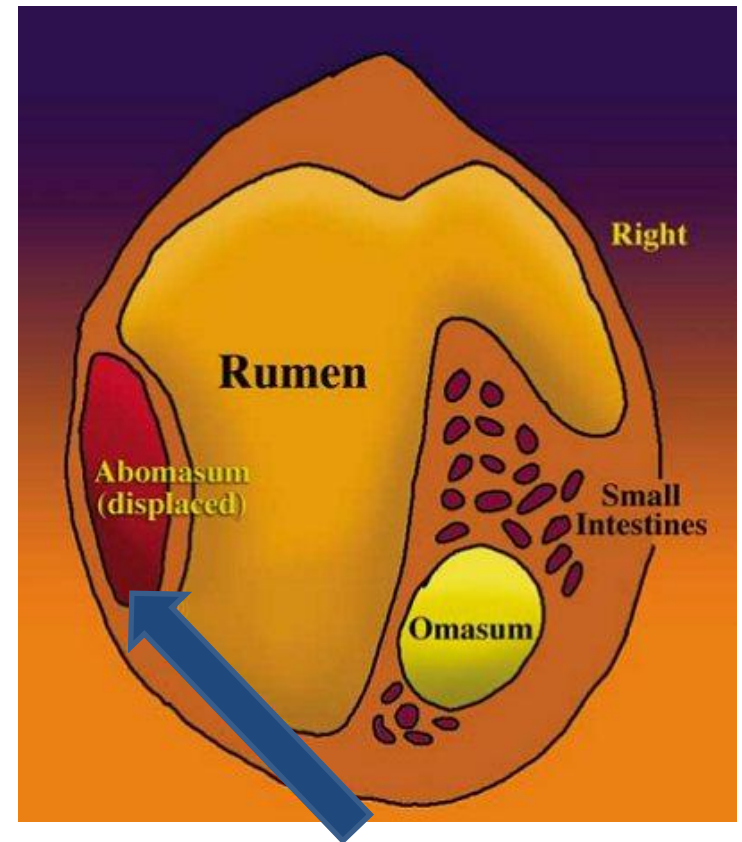
Abnormal Rumen
Cow Off-feed
No other diagnosis is found



Left Displaced Abomasum



**Normal
Abomasum**

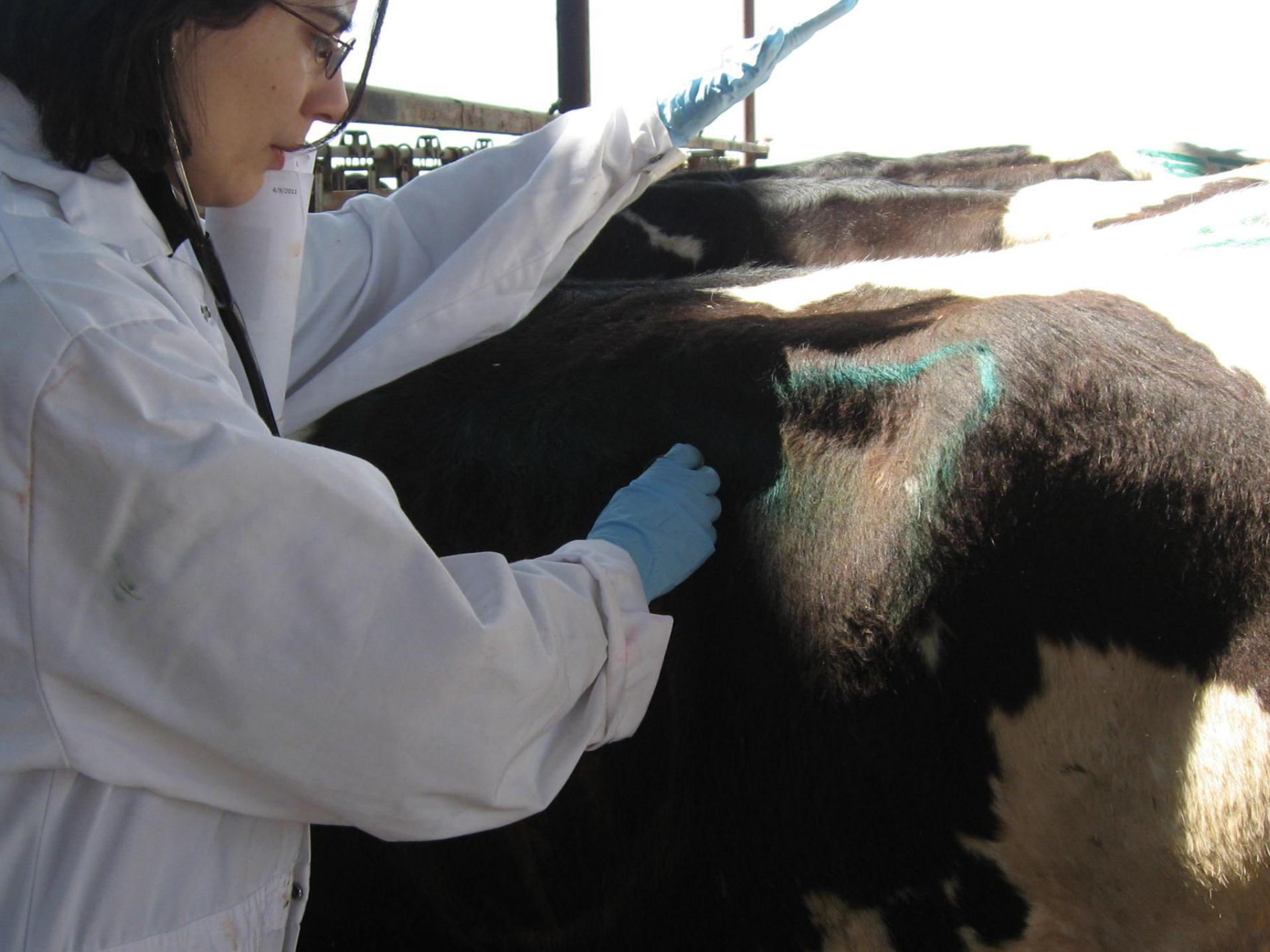


**Displaced
Abomasum**



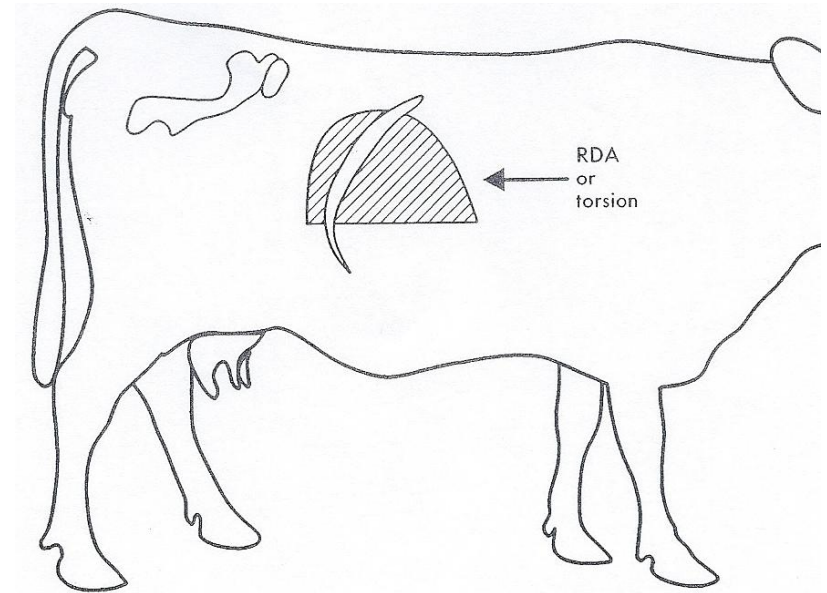
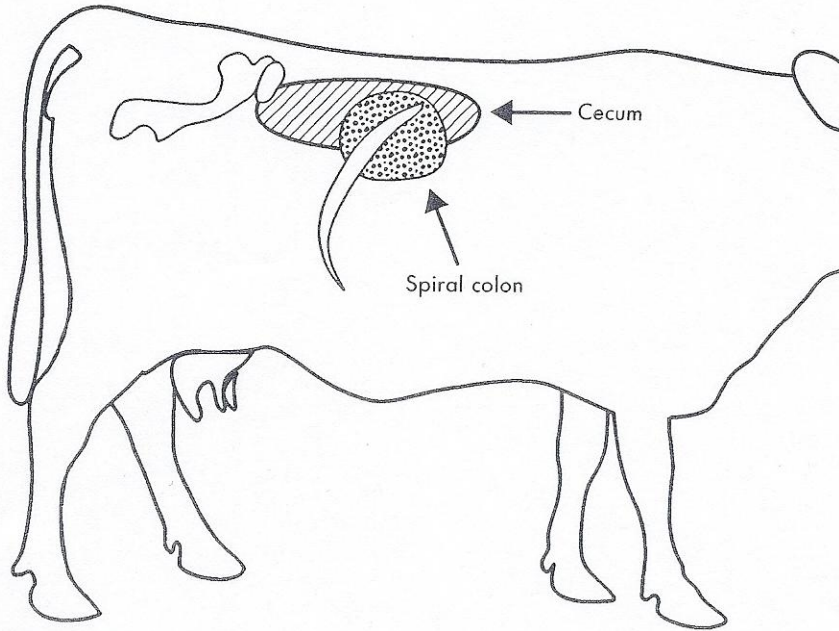






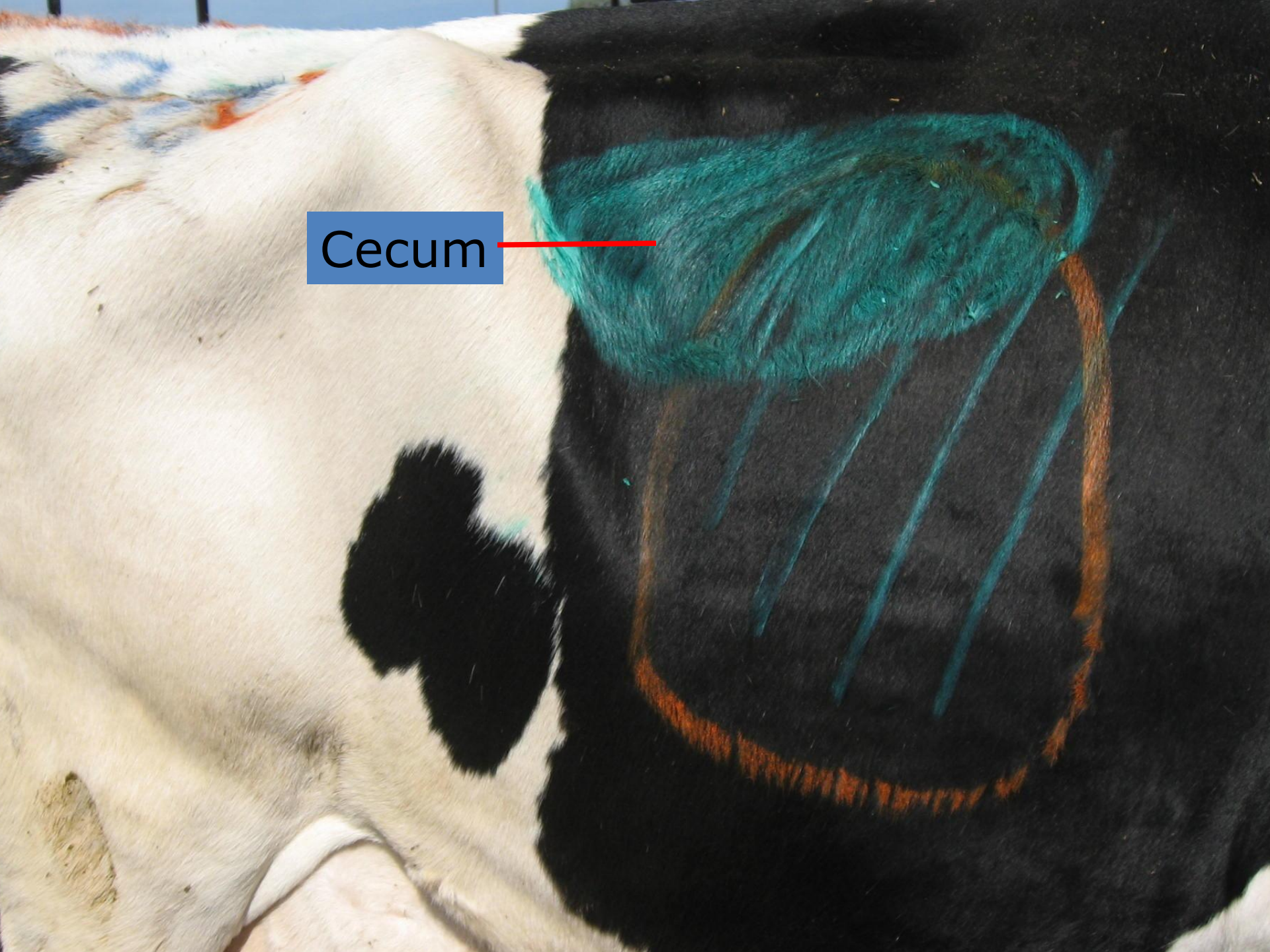


Right Displaced Abomasum





Cecum

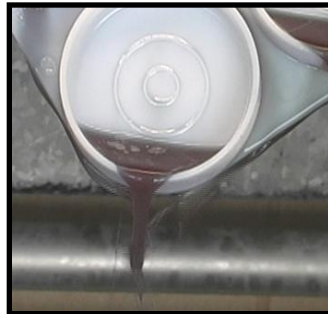


Colon



CMT

Abnormal Udder



Sample for Milk Culture

Abnormal Milk
CMT positive




Sample for Manure Culture



Fever
Abnormal Manure

<http://genex.crinet.com/page290/DairyHerdsmanVideos>

...com/page290/DairyHerdsmanVideos



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Dairy Herdsman Videos

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Dairy Herdsman Videos



The Dairy Herdsman Continuing Education Video Series was developed and produced by CRI and Dr. Roger Weigle. Dr. Weigle had over 20 years of veterinarian experience working in a private Wisconsin dairy clinic before joining Genex as the Associate Vice President of Animal Health.

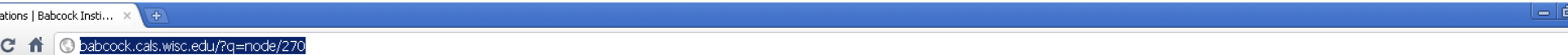
According to Dr. Weigle, "The reason for producing this video series was to try to empower the farmer or herdsman with information they can use to upgrade the management of their herds."

The series also shows proper techniques as well as simpler and safer ways to complete many day-to-day procedures. These videos are excellent training tools for new farm employees or a great review for the experienced farmer. Currently there are five topics covered in the series. Each is available in English or Spanish on DVD.

[Click here to for a preview of the videos](#)

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