FIVE (5) STATION EXAMINATION- BOVINE

DISTANCE EXAM

1. Environment – faeces, urine, discharges on floor, cleanliness, infrastructure
2. Demeanor – is the animal bright, alert and responsive (BAR) or dull and depressed (DD); anxious; restless; interacting with herd mates
3. Posture; stance; gait
4. Conformation – symmetry and shape of abdomen, thorax, limbs, head
5. Lumps, bumps, lacerations, lesions
6. Ectoparasites
7. Hair coat and skin – shiny or dull, dry, alopecia, colour change
8. Discharges – eyes, nostrils, vulva, rectum...
9. Respiration – rate and character (15 – 30 breaths per minute)
10. Initial Body Condition (Provel), Body Condition Score (Elanco)
11. Breed

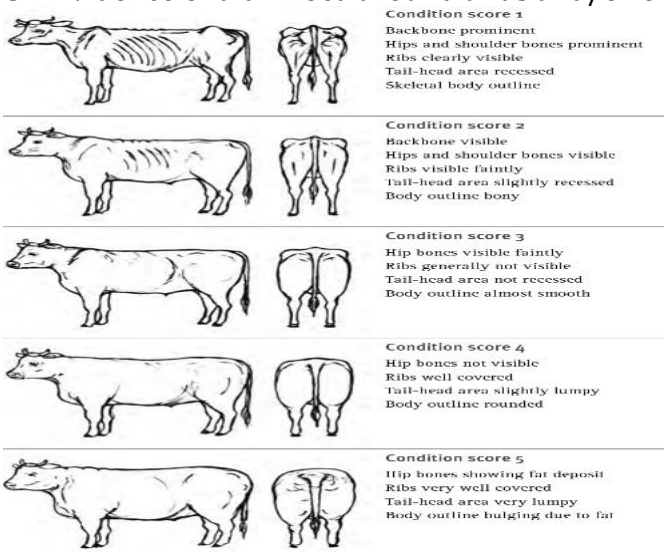
HANDS-ON EXAM: FIVE STATIONS

>Examination of all lymph nodes includes inspection and palpation. The size, consistency and pain on palpation should be noted and it should be compared to the corresponding lymph node on the opposite side.

>Examination of all limbs includes inspection and palpation along the entire limb. Any heat, pain, swelling, redness of the leg or joints must be noted. The limb may be lifted and the hoof cleaned and inspected also.

STATION 1 – TAIL END

1. Pulse – coccygeal artery **(60 - 80 beats/minute)**
2. Attempt to collect a urine sample. Note posture.
3. Tail tone and anal tone
4. Vulval mucous membranes – colour, lesions, discharges, CRT
5. Skin and hair condition at escutcheon
6. Final Body Condition Score (Provel)
7. Rectal temperature **(38 - 39°C)**
8. Evidence of diarrhoea around anus and/or on tail



FIVE (5) STATION EXAMINATION- BOVINE

STATION 2 – LEFT SIDE

1. Left prefemoral lymph node
2. Left hind leg
3. Palpate and auscultate rumen at left paralumbar fossa – consistency normally doughy, rate of contractions usually 2 - 3/2 minutes or 7/5 minutes**. (sounds like waves crashing on a beach)**
4. Percuss and auscultate left paralumbar fossa. Simultaneously auscultate and ballot rumen (succussion).
5. Percuss and auscultate left flank caudal to 9th rib (checking for left displaced abosasum)
6. Ballot left flank
7. Auscultate and percuss lung field at several levels. Note rate (15 - 30 breaths/minute) and character of lung sounds.
8. Auscultate the heart. Note the rate (60 - 80 beats/minute), character and rhythm.
9. Left prescapular lymph node
10. Left forelimb
11. Withers pinch test (**not done in small ruminants**)

STATION 3 – HEAD AND NECK

1. Shape and symmetry of head
2. Note if animal is naturally polled, horned, or was dehorned.
3. Percuss paranasal and frontal sinuses **(sound hollow)**
4. Ears – Ectoparasites, wax build-up, temperature, discharges **(cold ears – dehydration)**
5. Eyes – discharges, degree of sunkeness, eyelid skin tent, mucous membrane colour, menace response, nictitans, corneal integrity **(3rd eyelid, pink moist and smooth)**
6. Muzzle and nostrils – crusting, erosions, moist or dry, discharges (character, unilateral or bilateral)
7. Mouth – viscosity of saliva, ulcers, vesicles, colour of oral mucosa, hard palate
8. Palpate tongue – 'wooden tongue', papillae
9. Age animal by dentition
10. Submandibular and retropharyngeal lymph nodes
11. Neck muscle and brisket – swellings, oedema
12. Jugular veins, and jugular pulse on both left and right
13. Palpate trachea. Try to elicit a cough

STATION 4 – RIGHT SIDE

1. Right prescapular lymph node
2. Right forelimb
3. Auscultate heart
4. Auscultate and percuss right lung field
5. Palpate liver behind right costal arch
6. Palpate and auscultate right paralumbar fossa for intestinal sounds (1/4-5 seconds) (**ileocecal junction sounds like a flushing toilet)**
7. Ballot right flank
8. Percuss and auscultate right flank caudal to 9th rib
9. Right prefemoral lymph node
1. 10. Right hind limb

STATION 5

1. Size, conformation and symmetry of udder
2. Examine skin of udder and teats, and also between udder and medial thigh
3. Inspect teat orifices, palpate teat canals and teat sphincters
4. Palpate each quarter
5. Supramammary lymph nodes
6. Palpate mammary vein (subcutaneous

MASTITIS is defined as inflammation of the mammary gland. Mastitis may be caused by infection (bacterial, viral, fungal, or mixed) or by trauma. While possible in all mammalian species, mastitis affects dairy animals more commonly, with significant economic impact at the farm level based on wasted milk, wasted productive days, culled animals, and veterinary costs.

Clinical mastitis causes gross physical changes that are detectable on physical examination:

1. **Changes in the milk:**
   a. Colour changes from white to yellow, brown, or blood-tinged.
   b. Texture may become thick, with clumps and/or clots, or may be watery.
   c. Smell may be foul.
2. **Changes in the udder:**
   a. Cardinal signs of active inflammation (heat, pain, swelling, redness).
   b. Udder may become cold and turn blue or black (gangrenous mastitis).
   c. Mammary abscesses can occur with or without mastitis.
3. **Changes in the animal (cow):**
   a. Clinical signs such as anorexia, pyrexia, lethargy,

abdominal) 7. Palpate umbilical area (swelling, heat, oedema, hernia) 8. Strip cup test 9. California Mastitis Test	and/or depression. b. Supramammary lymph nodes can become enlarged. c. Toxic mastitis can be fatal within 24 hours if untreated! Clinical mastitis is detected by assessment of the clinical history provided by the farmer, a thorough physical examination of the cow, and adequate evaluation of the milk. Milk from each quarter must be inspected, as each quarter is physically and functionally separate.
A STRIP CUP is used to perform appropriate organoleptic assessment of the milk. Milk is stripped from each quarter into the black mesh, which is used to evaluate the colour of the milk, and the presence of clumps or clots. The mesh is divided into four sections to ease in examining milk from each quarter. Odour is also evaluated at this time. **Subclinical mastitis** must be considered if clinical mastitis has been ruled out. As the name suggests, the degree of inflammation is below a level that can be visually detected. Somatic cells are a normal component of milk from a healthy udder. In subclinical mastitis, there will be a considerable increase in the number of somatic cells released into the milk. Therefore, an assessment of the number of somatic cells will determine the presence or absence of subclinical mastitis.	**The CALFORNIA MASTITIS TEST (CMT) is a common** cow-side evaluation of subclinical mastitis. The test kit comprises CMT reagent and a white CMT paddle with four compartments. The CMT reagent has two major components: 1. **A detergent (alkyl aryl sulphonate)** which reacts with the DNA of the somatic cells to form a gel. 2. **A pH indicator (bromo cresol purple).** Acidic milk causes a yellow colour and may be caused by bacterial fermentation. Alkaline milk is deep purple and is associated with depressed lactation. Milk from each quarter is mixed with equal amounts of CMT reagent in separate wells of the paddle. The paddle is then gently swirled horizontally to promote mixing and movement of the milk-reagent mixture. The mixture is examined both when in motion and when standing still for changes in colour and viscosity, and the degree of gel formation is used to interpret the test.