Diagnostic chart based on disease signs and observations

Diseases of Cattle in East Africa

1. Lead symptom: Died very suddenly – animal(s) not seen sick before death

All the diseases below can cause sudden death in cattle. The additional observations listed intend to guide you towards the most likely causes - but do not allow for confirmation of any particular disease. To get more information please follow links below.

Additional observations:

- Un-clotted blood oozing from body openings (nose, anus), grazing in dry flood zone → Anthrax
- Swelling of muscle surface & gas under the skin (crackling sound), esp. 1 to 3 year olds → Blackquarter
- Feeding on clover / some legumes / green sorghum, abdomen extremely enlarged, froth in nose → Bloat
- Painful swelling on neck / brisket, extremely fast breathing, froth in nose → Haemorrhagic Septicaemia
- Animals grazing wet area or flood-zone, in swamps and marshes → Black Disease (Liver Fluke)
- Many ticks, only exotic cattle (= European breed) affected, convulsions, froth in nostrils → Heartwater

Other possible reasons why cattle can die suddenly are:

- Cattle have access to improperly stored chemicals, use of insecticide spray on/near cattle → Poisoning
- Small bite marks on the head or leg → Snake bites
- Sudden death only affecting suckling calves → Calf problems

2. Lead symptom: Coughing and/or pus and watery fluid coming from the nose
All the diseases below can cause respiratory disease in cattle. The additional observations listed will guide you towards the most likely causes - but do not allow for confirmation of any particular disease. To get more information please follow links below.

**Additional observations:**

### Acute

- After climatic/transport stress or crowding/mixing of animals, many very sick at once  → Pasteurellosis
- Young animals suddenly sick, most recover, some don’t and become very sick  → Calf Pneumonia
- Very fast breathing, swollen lymph glands, froth in nostrils / mouth  → ECF

### Chronic

- Deep dry cough, shallow fast breathing, grunt when exhaling, progressive loss of condition  → CBPP
- Occasional low moist coughing, mostly single adult animal, progressive loss of condition  → Tuberculosis
- Dry cough, chronic disease, esp. young animals on cool and wet highland pastures  → Lung worms

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**3. Lead symptom: Diarrhoea - scouring**

All the diseases below can produce diarrhoea in cattle. The additional observations listed will guide you towards the most likely causes - but do not allow for confirmation of any particular disease. To get more information please follow links below.

**Additional observations:**

- Rains, esp. young cattle, feeding normally, poor body condition, not growing  → Worms Stomach & Intestines
- Few calves dying, some without diarrhoea, necrotic ear tips in calves, sporadic abortion  → Salmonellosis
- Only young suckling calves affected by and dying from diarrhoea  → Calf Scour
- Mainly 8 months to 2 years old, dull, lesions inside mouth  → Bovine Virus Diarrhoea /Mucosal Disease
- Chronic diarrhoea in an adult, progressively loosing condition, feeding normally  → Johne’s Disease
- Acute, diarrhoea, lactating cow affected, fever, off-feed, udder is hot and swollen  → Coli mastitis
4. **Lead symptom:** *Loosing condition, ribs sticking out, rough coat*

With all the diseases listed below cattle do severely loose condition. The additional observations listed will guide you towards the most likely causes - but do not allow for confirmation of any particular disease. To get more information please follow links below.

**Additional observations:**

- Feeding normally, rainy season, mainly young cattle, often diarrhoea → Worms Stomach & Intestine
- Feeding normally, weak, anaemia, sometimes diarrhoea → (Blood-sucking) Worms Stomach & Intestine
- Feeding normal, bottle jaw (= oedema on lower jaw), grazing in marsh / near swamp → Liver Fluke
- Very sleepy, pale membranes (around eyes), large lymph glands, area has Tse-Tse flies → Trypanosoma
- Feeding normally, dull or abnormally coloured hair coat → Mineral deficiency
- Dry cough, ongoing respiratory disease problem in the herd since weeks and months → CBPP
- Occasional low cough, sometimes also diarrhoea, mostly single adult animal → Tuberculosis
- Chronic diarrhoea in an adult, progressively loosing condition, feeding normally → Johne’s Disease
- Very thin, drought or insufficient access to quality feed; very hard coarse silage → Starvation
- Wet, grazing inside thicket, very high tick load, pale membranes (around eyes) → Tick worry

5. **Lead symptom:** *Abortion*

All the diseases below can cause abortions in cattle. The additional observations listed will guide you towards the most likely causes - but do not allow for confirmation of any particular disease. To get more information please follow links below.

**Additional observations:**

- Most foetuses are expelled near term, very often retained placenta after the abortion → Brucellosis
- Very strong rains, females abort at all stages of pregnancy, newborns dying → Rift Valley Fever
- Late abortion, foetus decomposed, animals fed on poor quality silage (bad smell) → Listeriosis
- Late abortion, wet pasture (standing puddles), cow may be sick before abortion (jaundice) → Leptospira
- Some calves dying without clear signs, some animals with severe diarrhoea → Salmonella
Abortion between 4 and 6 months of pregnancy (often unnoticed), birth of paralysed calf

→ Neospora

Early abortion (first 4 to 5 months hence often unnoticed), poor herd conception rate

→ Trichomonas

6. **Lead symptom:** Pale membranes or jaundice, often swollen lymph glands

With the diseases listed below cattle can develop anaemia (visible as pale/white membranes around the eyes) or jaundice (yellow membranes around the eyes) and have swollen glands. The additional observations listed will guide you towards the most likely causes - but do not allow for confirmation of any particular disease. To get more information please follow links below.

**Additional observations:**

- Adult animal, first pale membranes later jaundice, dark-red urine, constipation/diarrhoea
  → Babesia

- Esp. in adults, membranes first pale then yellow, constipation/diarrhoea-similar to Babesia
  → Anaplasma

- Large glands, fever, cloudy eyes, fast breathing, sometimes diarrhoea, very sick & getting worse
  → ECF

- Large glands, deteriorating slowly, very weak, always sleepy, pale membranes, area has Tse-Tse
  → Tryps

- Normal feeding, anaemia, normal glands, sometimes diarrhoea
  → (Blood-sucking) Worms Stomach & Intestines

7. **Lead symptom:** Lesions on the skin

All the diseases listed below can produce lesions on the skin of cattle. The additional observations listed will guide you towards the most likely causes - but do not allow for confirmation of any particular disease. To get more information please follow links below.

**Additional observations:**

- Painful nodules on skin (later become small wounds), inflamed eyes, running nose
  → Lumpy Skin

- Tufts of hair coming off easily (esp. neck & shoulder), bold plaques, scabs, during rains
  → Dermatophilus

- Round hairless skin lesions, become confluent, not itchy, esp. in young animals
  → Ringworm

- Very itchy skin lesion with hair loss and thickening of skin (can look like elephant skin)
  → Mange

- Affects light coloured skin parts most exposed to sun, skin sloughing off, not itchy
  → Photosensitisation
Rubbing, scratching and biting the skin, sometimes also anaemia ➔ Lice (massive infection)
Bleeding spot on skin, attracts flies and does not heal for a long time ➔ Filaria

8. Lead symptom: Lesions in the mouth and on the head

All the diseases listed below can produce lesions inside the mouth, on the head and/or affect the eyes of cattle. The additional observations listed will guide you towards the most likely causes - but do not allow for confirmation of any particular disease. To get more information please follow links below.

Additional observations:

- Drooling, lameness, erosions on tongue / gums and also between the claws ➔ Foot & Mouth Disease
- Very sick(!), inflamed eyes (milky-blue), ulcers in mouth, crusts on nostrils ➔ Malignant Catarrhal Fever
- Weeping, one eye (rarely both) affected, eye: cloudy/white/blue/milky, temporary blind ➔ Pink Eye
- Small blood spots in the eye - come and go (also inside vulva), nose bleeding, ‘poached egg eye’ ➔ Ondiri
- Lesions inside mouth, weeping, mainly 8 months to 2 years old, severe diarrhoea ➔ Mucosal Disease
- Weeping (both eyes), eyes cloudy, very sleepy, poor condition, large lymph glands, Tse-Tse flies ➔ Tryps
- Very sick, cloudy / milky eyes, high fever, fast breathing, swollen lymph glands ➔ ECF
- Bottle jaw, grazing in or near marsh/swamp ➔ Liver fluke

9. Lead symptom: Paralysis / Central nervous disorder / circling

With all the diseases listed below cattle can be paralysed or show abnormal movement and behaviour. The additional observations listed will guide you towards the most likely causes - but do not allow for confirmation of any particular disease. To get more information please follow links below.

Additional observations:

- Single animal affected, drooling, knuckling of hind fetlock, trying to pass faeces, bellowing ➔ Rabies
- Coordination problems, exotic cattle affected, convulsions, froth in nostrils before death ➔ Heartwater
- Fed on poor silage, drooping ear, blind, circling, tongue hanging out, also abortions ➔ Listeriosis
Stiff, unable to stand up, can’t swallow, flaccid tongue, slight bloat → 3-Day Sickness (Ephemeral Fever)

Very good milker in peak lactation, sleepy, sometimes licking & biting itself, can get excited → Ketosis

Older cow immediately after calving, too weak to stand up but trying → Hypocalcaemia (milk-fever)

Blindness, head pushing, aimless wandering, slowly progressing, become recumbent → Tapeworm (cyst)

### 10. Lead symptom: Lameness

With all the diseases listed below cattle can go lame. The additional observations listed will guide you towards the most likely causes - but do not allow for confirmation of any particular disease. To get more information please follow links below.

**Additional observations:**

- **Common causes** of lameness in cattle are foot problems due to injury and lack of foot care:
  - Abscess of the heal, the coronary band, the white line, the sole
  - Foreign body (stone) between the claws or penetrating the sole
  - Ulcers of the sole
  - Footrot (cheesy material in lesion between the claws, very smelly)
  - Crack of the hoof wall
  - Overgrown claws (corkscrew claw, scissor claw)

- **Infectious causes** of lameness in cattle:
  - Drooling, erosions on tongue & gums and also between the claws → Foot & Mouth Disease
  - Some unable to stand up, can’t swallow, flaccid tongue, slight bloat → 3-Day Sickness (Ephemeral Fever)
  - Swelling of muscle, gas under the skin (crackling sound), esp. 1 to 3 year olds → Blackleg/Blackquarter
  - Drooling, knuckling of hind fetlock, trying to pass faeces, bellowing → Rabies