CHAPTER TWO LIVESTOCK HEALTH AND DISEASES

Introduction

- **Health:** is a state of the body whereby all organs and systems function normally.
- **Disease:** is the deviation from the normal functioning of the body organs and systems of an animal.

Importance of keeping livestock healthy

- Healthy animals produce high quantity and quality products.
- Health animals live longer hence long production period.
- Healthy animals produce healthy offspring which mature faster.
- Healthy animals have low production costs.
- Healthy animals attract better prices in the market compared to sick animals.

Predisposing factors of livestock disease

- Age of animal: certain diseases attack only young animals like milk anemia.
- Sex of the animal: some diseases are gender specific example mastitis.
- Skin color: affects the extent to which sun heats by sunburn.
- **Species of animal:** swine fever only affects pigs.

Sign of ill livestock

- Reduced appetite.
- Reduced production.
- The condition of animal coat.
- The stool; excessively loose dung (diarrhea).
- Excessive salivation.
- Swelling.
- Gradual or sudden loss of weight.
- Abnormal urine coloration.

- Higher temperature.

Causes of livestock diseases

I. Living organism which can be:-
   - **Microorganisms**: such as bacteria, protozoa, viruses and fungi.
   - **Parasitic organisms:** such as flies and ticks.

II. **Chemical poisoning:** the animal may become ill after swallowing a poisons or a poisons plant.

III. **Poor feeding or nutrition:** a diet which is not balanced as well as over feeding or under feeding results illness.

IV. **Physical injuries:** once agents like virus, bacteria, and parasites infect animal mainly cause physical injuries.

Classification of livestock diseases

Disease	Agent	Signs	Control
Anthrax, Attacks cattle, sheep and goats. Kud	Bacillus athracis Site: internal orgabn rupture blood vessel	• Sudden death. • Watery blood oozes through openings. • High temperature.	• Proper disposal of carcasses. • Quarantine. • Vaccination.
Mastitis Attacks all lactating animals	Staphylococcus epidermidis. Streptococcus agalactiae.	• Presence of blood in milk. • Swollen udder or teats.	• Treating with antibiotics. • Proper hygiene. • Practicing completing milking.
Fowl typhoid Attacks poultry	Salmonella bacteria	• Sudden death. • Comb and wattle pale (anemia) • Less feeding.	• Quarantine. • Proper feeding. • High hygiene.

		• Greenish yellow diarrhea.	

Foot rot Attack cattle, goats and sheep.	**Fusiformis spp**	• Lameness. • Swollen and painful hoot. • Hoof contains pus and smells rotten.	• Practicing hoot trimming. • Providing a food bath of copper (ii) sulphate.
Brucellosis Attack cattle and sheep	**Brucella abortus**	• Abortion. • Brownish vaginal discharge. • Retention of placenta. • Inflammation of testis.	• Vaccination. • Use of healthy bulls. • Proper sanitation. • Use of artificial insemination.
Scours Attack calves, piglets, lambs and kids. Scores	Escherichia coli	• Dehydration. • Blood and mucus stains in faeces. • White or yellowish diarrhea with pungent smell.	• Higher hygiene. • Proper feeding. • Treating and isolating sick animals.

Viral disease

Disease	Agent	Sing	Control
Foot and mouth disease attack cattle,	Foot and mouth disease virus	• Lameness • Loss of appetite. • Higher fever.	• Mass slaughter. • Quarantine. • Vaccination.

sheep, goats and pigs.		• Blisters in the mouth, teats and udder.	
Newcastle disease Attacks poultry	Newcastle disease virus	• Nasal discharge. • Watery greenish diarrhea. • Breathing difficulties. • Coughing and sneezing.	• Killing the infected birds. • Quarantine. • Vaccination.
Fowl pox Attacks poultry	Fowl pox virus	• Lesions on skin, comb, leg and vent. • Breathing difficulties. • Coughing and sneezing	• Vaccination • Killing infected birds.
Rinderpest Attacks cattle, sheep, goats and pigs	Rinderpest virus	• Nasal discharge. • Lacrimation. • Fever. • Animals grinding their teeth.	• Quarantine. • Vaccination. • Mass slaughter.
Gumboro Attacks young poultry	Gumboro virus Bursa gland	• Watery diarrhea • Pecking of vent due to irritation.	• Vaccination. • Practicing hygiene.
African swine fever attacks pigs	African swine fever virus	• Breathing difficulties. • Diarrhea. • Pigs appear blue.	• Quarantine. • Vaccination. • Mass slaughter.

PROTOZOAN DISEASES

1) EASTCOST FEVER

- **East coast fever:** is a disease of cattle, sheep and goats causes by protozoan parasite called **Theilera Parva.**
- **Symptoms**
  - ✓ Swollen lymph nodes.
  - ✓ Breathing difficulties
  - ✓ Fever lacrimation
  - ✓ Nasal discharge
- **Control**
  - Controlling ticks.
  - Treating using appropriate drugs.

2) ANAPLASMOSIS

- **Anaplasmosis**: is a vector born infectious blood disease in cattle, sheep and goats by Anaplamsa Marginate.
- The parasite infects the red blood cells and causes anemia.
- **Symptoms**
  - ✓ Anemia
  - ✓ Fever
  - ✓ Weight loss
  - ✓ Breathlessness
- **Control**:
  - ✓ Controlling ticks
  - ✓ Treating appropriate drugs.

3) COCCIDIOSIS

- **Coccidiosis**: is a parasite disease of the intestine tract of animals caused by **Coccidia of Elmeria spss.**
- **Symptoms**
  - Whitish or blood stained diarrhea.
  - Ruffled feathers.
  - Dropping wings.
  - Dehydration.
  - Anemia

- Control
  - Use coccidiostats.
  - Avoid overcrowding.
  - Treating with appropriate drugs.

4) TRYPANOSOMIASIS

- **Trypanosomiasis**: is a name of several diseases in vertebrates caused by parasitic protozoan trypansoma that attacks cattle, sheep, pigs, dogs and horses.
- **Symptoms**
  - ✓ Rough coat.
  - ✓ Enlarged lymph nodes.
  - ✓ Loss of condition.
  - ✓ Loss of hair at the tail.
- **Control**
  - ✓ Controlling tsetse flies.
  - ✓ Treating with appropriate drugs.

NUTRITIONAL DISEASES

1) MILK FEVER (lack of calcium)

- Milk fever: is a disorder mainly cattle, goats and sheep caused by low blood calcium (hypocalcaemia).
- **Symptoms**
  - ✓ Muscular twitching.
  - ✓ Staggering
  - ✓ Animal lies with neck twisted backwards.
  - ✓ Paralysis
  - ✓ Coma
- **Control**
  - ✓ Feeding animals on diet rich in calcium.
  - ✓ IV injection with calcium.

2) BLOAT

- Affects cattle, sheep and goat.
- **Causal:**
  - ✓ Excessive feeding of animals on green succulent pastures.
  - ✓ Blockage of esophagus.
- **Symptoms**
  - ✓ Left side of the abdomen is excessively distended.
  - ✓ Difficulty in breathing.
  - ✓ Profuse salivation.
- **Control**
  - ✓ Exercising the sick animal.
  - ✓ Feeding the animal on dry forage.
  - ✓ Using trocar and cannula to remove gas from the stomach.

5.4- General methods of disease control

- **Sanitation**: provision of an appropriate clean environment that is free from disease causing organisms.
- **Proper feeding:** involves providing animals with a balanced diet.
- **Quarantine**: deliberately isolation of sick animals from healthy animals.
- **Regular vaccination:** enables animal's body to produce more antibodies against certain disease.
- **Control parasite:** through dipping and spraying.
- **Culling**: involves the removal of sick and unproductive animals from the herd.
- **Proper housing:** housing should match animal needs. E.g- Mammals do not thrive in overcrowded or wit and damp conditions.

Appropriate methods of handling livestock

- **Hoof trimming:** cutting overgrown hooves of goats, sheep and cattle.
- **Reasons of hoof trimming:-**

- ✓ To facilitate easy movement.
- ✓ To control foot rot disease.
- ✓ To prevent the ram from injuries of ewe during mating.

Dehorning or disbudding

- **Dehorning**: is the practice of removing, stopping or discouraging the growth of horns in cattle and goats.
- **Reasons for dehorning**
  - ✓ Easy to handle animals.
  - ✓ Prevents the injuries.
  - ✓ Transportation and feeding easy.
  - ✓ Reduce farm destruction..
- **Methods of dehorning**
  - ✓ Chemical method.
  - ✓ Hot iron.

Castration

- **Castration**: is practice of making the testicles of male non-functional.
- **Reasons for castration:-**
  - ✓ To control breeding and interbreed.
  - ✓ To encourage fast growth rate.
  - ✓ To control breeding disease.

Culling

- **Culling**: practice of removing unproductive animals for the breading livestock or herd.
- **Culling is done on basis of:**
  - Poor health
  - Old age
  - Poor production
  - Hereditary defects.
  - Incompatibility to produce offspring.
  - Poor mothering ability.

Docking

- **Docking**: is the removal of tail in sheep carried out the first two weeks after birth; it is also called tailing.
- Docking is carried out using elastrator and rubber ring, a burdizzo, a knife or hot iron.
- **Reasons for docking:-**
  - ✓ To enable even fat distribution in the body.
  - ✓ To make mating easy.
  - ✓ To avoid occurrence of blowfly

Caponization

- **Caponization**: is the process of removing tests from male birds or cock.
- **Reasons of caponization:**
  - ✓ To make docile.
  - ✓ To improve meat quality.
  - ✓ To reduce breeding.
- **Methods of caponization**
  - ✓ Surgical operation: involves removal of tests.
  - ✓ Chemical: still bestrol.

THE END