

General Article \_\_\_\_\_ Chapter- 8

## **IMPORTANT DISEASE OF THE LIVESTOCK AND POULTRY**

*Mayur Gopinath Thalkar and Rajeev*

### **Abstract**

Health denoting physical, physiological and mental wellbeing of the animals. If any animal differ from that situation that condition is known as disease. In present book chapter various disease of the livestock, their mode of spread and control measure is discussed. From this book chapter farmer get awareness regarding disease occur in livestock and poultry and their control.

---

School of Agriculture, Lovely Professional University, Jalandhar, Punjab  
E-mail: [mayur.21028@lpu.co.in](mailto:mayur.21028@lpu.co.in), [mayursahebthalkar@gmail.com](mailto:mayursahebthalkar@gmail.com)

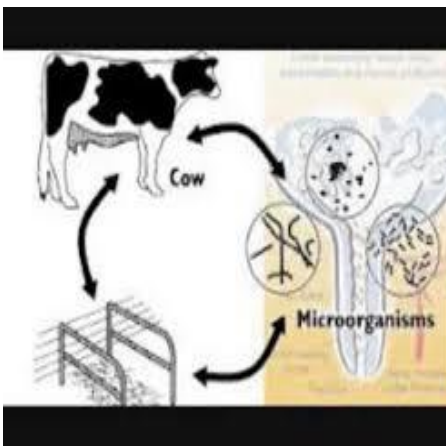
**F**ollowing disease mostly found in the livestock and there mode of the control given as:

1. Mastitis
2. Rider pest
3. Foot and mouth disease.
4. Anthrax
5. Brucellosis
6. Black Quarters
7. Hemorrhagic septicemia

## 1. Mastitis

### Synonyms

Mastitis denotes an inflammation of the udder. This disease is responsible for heavy financial loss of the dairyman due to abnormal milk, reduce milk production and decrease value of the cow.



**Mastitis**



**Mastitis**

### Etiology

Incomplete milking, improper milking methods, rough flooring, unhygienic condition and injury to teat and udder.

### Infectious agent Bacteria

Staphylococcus, Streptococcus and Fungus Aspergillus.

### Transformation

Disease spread through infected water, Contaminated bedding , utensil and milkman hand.

## Symptoms

- A. Acute form-: fever, loss of the appetite udder is swollen, hot and painful, milk is brownish and milk contains clots.
- B. Chronic disease -: No swelling of the udder, udder become hard due to fibrosis.

## Mastitis Diagnosis

**Physical Examination** of the udder i.e size, shape and consistency.

**Strip Cup Test** In that case milk taken in to the cup and examine clot or quality of the milk inside to the cup.

**Californian Mastitis Test** Milk is taken directly in to the four chambers. After adding CMT reagent formation of greenish blue precipitate and positive test clot indicate

## Treatment

- a) Give antibiotic like penicillin, streptomycin, tetracycline for 3 days.
- b) Give vetclox or tilox 1 tube twice daily for 3 days

## Control

- a) Isolation and treatment of the affected animals.
- b) Treatment of the all teats of the cow.
- c) Udder and hand of the milk man wash with the help of the antiseptic solution before and after milking.
- d) Milking shade must be washed with the help of the running water.
- e) Proper disposal of the mastitis milk.
- f) Maintain hygienic condition into the cattle shed.
- g) Use proper method of the milking i.e full hand method of the milking or machine milking.
- h) Do not allow to seat animal immediately after milking.
- i) Regular testing of the cow milk for the mastitis.
- j) Cow should be providing soft bedding.

## 2. Rider Pest

### Synonyms

Bulkandi, cattle plague

### Etiology

It is caused by paramyxovirus



**Rider Pest**

### Transmission

Spread through ingestion of contaminated feed and water. It also spread through breathing.

### Symptoms

High fever persist for 3 days, loss of appetite, suspended rumination, dullness. Drop in milk yield. Salivation, shooting diarrhea, Dehydration, ulcers and oral mucus membrane.

### Control

Identification and isolation of the sick animals. Disposal of dead animals. Disinfection of contaminated shed and premises. Contaminated bedding and fodder should be burnt.

### Vaccine

Tissue culture Rinder pest vaccine. 1 ml every alternate year. Freeze dried goat tissue vaccine 1 ml ones in life. It should be given to exotic goat, sheep and cattle.

### Treatment

1. Oxytetracycline, penicillin streptomycin should be given.
2. Antirinder pest serum 50 to 100 ml to affected and incontact animals

## 3. Foot and Mouth Disease

### Synonyms

Khurkut

### Etiology

It is caused by Picornav virus or aphthovirus having 7 strain



**Foot Disease**



**Mouth Disease**

### Symptoms

High fever persist for 3 days, loss of appetite, suspended rumination, dullness. Drop in milk yield. Salivation, shooting diarrhea, Dehydration, ulcers and oral mucus membrane. Lameness profuse salivation dental pad and oral mucosa.

### Vaccine

FMD Raksha vaccine 3 ml

### Treatment

Oxytetracycline, penicillin streptomycine should be given. Foot wash with 2% copper sulphate and 2% sodium carbonate. Mouth wash with Kmno4 Solution.

### Control

Identification and isolation of the sick animals. Disposal of dead animals. Disinfection of contaminated shed and premises. Contaminated bedding and fodder should be burnt. Calf should not allow suckle teat of the udder.

## 4. Anthrax Bacterial

### Synonyms

Kalpuli, Slenic fever.

### Etiology: Bacillus antracis.

### Transmission

Contaminated feed and water.

### Symptoms

High fever, loss of appetite, suspended rumination, blood in to the milk, bleeding from open part of the body like anus mouth vulva etc.



**Anthrax Disease**



### Control

Identification and isolation of the sick animals. Disposal of dead animals. Disinfection of contaminated shed and premises. Contaminated bedding and fodder should be burnt. Disinfection of the cattle shed don't allow grazing in affected area.

### Vaccine

Anthrax spore vaccine 1 ml S/C before on set of the Monsoon.

### Treatment

Asnti anthrax serum 100-200 ml may be given Oxytetracycline, penicillin streptomycine should be given.

## 5. Brucellosis Bacterial Disease

### Synonyms

Contagious, abortion, bangs disease.

### Etiology:- Brucellaabortus

### Transmission

Contaminated feed and water, inhalation, discharge of aborted foetus.

### Symptoms

Abortion mainly during advance or late pregnancy, Infertility, weak calf born from affected cow, vaginal discharge , retention of placenta.

### Control

Test entire herd for brucellosis ones in a year. Dispose dead animals i.e aborted foetus, placenta. Adopt artificial insemination. Disinfection of barn regularly.

### Vaccine

Brucella cotton 19 strain vaccine 5 ml for 4 to 8 month female calf. i.e calf hood vaccination



Severe throat and brisket oedema



Abortion

**Treatment-:** There is no know treatment which can cure brucellosis but oxy tetracycline, streptomycin may be tried.

## 6. Black Quarters (B.Q)

### Synonyms

Black leg, farrya and sujaa

### Etiology

It is cause by **Clostridium Chauvoei**



**Black Quarter (B.Q)**

### Transmission

Contaminated feed and water and inhalation breathing and wounds.

### Vaccine

B.Q vaccine 5 ml every year before rainy season

### Treatment

B.Q antiserum in large dose. Oxytetracycline 10 mg/ kg body weight. Penicillin 10000 units per kg body weight

## 7. Hemorrhagic septicaemia

### Synonyms

Shipping fever, Ghatsurp

### Etiology

Cause by **Pasteurellamultocida**

### Transmission

Contaminated feed and water and inhalation breathing and wounds.

### Symptoms

High fever, loss of appetite difficult breathing, Swelling over throat region, death within 10 to 72 hours

### Control

Isolation of affected animals deep buried dead animals disinfection of the cattle shed, don't allow grazing in affected area

## Important Disease of the Poultry

1. Ranikhet
2. Fowl pox
3. Markes disease

## 1. Ranikhet

### Synonyms

New castle disease, Manmodi.

### Etiology: Paramyxovirus

**Age group:** All age group

**Mortality:** 50 to 90%

**Morbidity:** 100%

### Transformation

It spread through infected feed, water and air

### Symptoms

Loss of appetite, dullness and depression, ruffled features, difficulty in breathing, coughing, nasal discharge, greenish watery diarrhea, Paralysis to one or both the legs or wing, torticollis i.e twisting of the neck.

### Control

Isolation of the affected birds, disinfection of the poultry house, deep buried or burning of the dead birds.

### Vaccination

Lasota Vaccine 1 drop in each bird eye or nostrils. Mukteshwar vaccine 0.5 ml subcut in 8<sup>th</sup> and 18<sup>th</sup> week age of the birds

### Treatment

There is no specific treatment for this disease however broad spectrum antibiotic should be given to check secondary bacterial infection. Vimneral liquid 2 ml per liter of drinking water

## 2. Fowl Pox

### Synonyms

Avian pox

### Etiology: Avipox virus.

### Age group

It is mild in adult but severe young age group.

**Mortality:** Up to 50%

**Morbidity:** High

### Transformation

Direct contact wound or insect Bite



### **Symptoms**

Loss of appetite, nasal discharge, loss of the body weight, decreased egg production, scab or wart like lesion on features part of the body such as comb and wattle, yellowish cheese like deposited on tongue, palate and under eyelid.

### **Control**

Isolation of the affected birds, disinfection of the poultry house, deep buried or burning of the dead birds.

### **Vaccination**

Fowl pox vaccine in 6<sup>th</sup> and 16<sup>th</sup> week of the life by cutaneous or wing web methods.

### **Treatment**

Broad spectrum antibiotic like Hostacycline powder@10 gm per 4.5 liter in drinking water. Local application of antiseptic Ointment. Vimeral liquid @ 2ml per liter of the drinking water



**Ranikhet Disease**



**Fowl Pox**



**Markes Disease**

### 3. Markes Disease

**Etiology** Herpes virus

**Age group** It is primarily disease of young chicks between 3 to 5 month age.

**Mortality** up to 40 to 50%

**Morbidity** High

**Transformation**

Inhalation of infective particles

**Symptoms**

In coordination, paralysis of the one or both the legs or wings, dropping or hanging of wings, blindness in the eye form of disease skin tumors leading to enlarged features follicles in skin form sudden dead of the bird.

**Control**

Isolation of the affected birds, disinfection of the poultry house, deep buried or burning of the dead birds.

**Vaccination**

HVT vaccine given to chicks on the day of hatching @ 0.2ml subcutaneously.

**Treatment**

Disease is not curable.

**References**

- A Textbook of Animal Husbandry. Front Cover. G. C. Banerjee. Oxford & IBH Publishing Company, 1991
- Sastry, N.S.R. and Thomas, C.K. (1976) Farm Animal Management. Vikkas Pub. House PVT. Ltd., 181.