



Kenya Climate Smart
Agriculture Project

How to Identify and Control Common Chicken Diseases and Parasites



How to Identify and Control Common Chicken Infectious Diseases and Parasites

Introduction

Keeping poultry healthy is important for improved productivity. High chicken deaths due to diseases is one of the major challenges to chicken keepers. This can be prevented by incorporating improved practices in key disease control and management which account for 70% difference in production. It is therefore important for the producer to have necessary capacity to carry out routine disease control practices. There is need for a poultry keeper to be able to identify sick chicken, knowledge on common chicken diseases is important.

How to identify sick chicken

Farmers can easily identify sick chicken in their flock by observing changes in their droppings, behaviour, feeding, movement and production. This will ensure prompt isolation and treatment of sick birds to reduce losses due to disease.



A healthy hen



A sick hen

Differentiating sick and healthy chicken

Characteristics of healthy chicken	Characteristics of sick chicken
Alert and on guard	Are sleepy
Have bright eyes	Have dull eyes that may have discharge
Eat and drink	Reduced motion or no activity
Walk, stand and run continuously	Sit and lie down most times
Lay eggs normally	Decreased egg production
Have smooth and neat feathers	Have rough loose feathers
Have soft compact dropping	Have wet droppings that may be stained with blood
Breath quietly.	Cough, sneeze or have a wheezing sound when breathing.

Important chicken diseases, symptoms and their control

Chicken keepers encounter many diseases, parasites and nutritional conditions which they control, manage or treat to keep their flocks healthy and profitable.

1. Newcastle disease (ND)

Also known as *Kideri/Mdondo* in Swahili. It is a viral disease that causes high death in chicken flocks. Chicken get the disease from eating or drinking contaminated feed or water. Chicken may also get the disease through breathing contaminated air.





A Newcastle disease infected hen with swollen face

Clinical signs of Newcastle disease

- Chicken die suddenly.
- Sick chicken that don't die immediately have,
 - Swollen head and neck
 - Greenish diarrhoea,
 - Twisted necks and paralysis of legs and wings

Control of Newcastle disease

- There is no treatment for Newcastle disease.
- Vaccinate chicks with Newcastle disease vaccine at 7 days of age (if it was not done at the hatchery), repeat at 3 weeks of age and repeat every 3-4 months.

2. Fowl pox

It is a slow spreading viral disease where chicken have raised wart like swellings on the comb, wattle, beak, eyelids and other soft part of the head. It affects birds of all ages and can occur anytime of the year.

Sick chicken have:

- Swollen, scabbed or shut eyelid.
- Black or reddish wart swelling on the face.
- Yellow sores in the mouth.
- Loss of appetite and weight loss.

Chicken get the disease through contact with wounds of infected chicken, bites from mosquitoes, fleas and mites.



Fowl pox infected chicken with raised wart like swellings occur on the comb, wattle, beak, and eyelids

Control of Fowl pox

- There is no treatment for infected chicken. Farmers are advised to:
 - Separate the sick chicken from the healthy ones.
 - Treat wet wounds with iodine or other antiseptic.
 - Put antibiotics in drinking water to treat bacterial infections in sick chicken.
 - Apply petroleum jelly to scabbed wounds.

To prevent fowl pox in chicken:

- Vaccinate chicks with Fowl pox vaccine at 3 to 6 weeks of age
- Always isolate new birds for at least 10 days before mixing with your flock
- Control mosquitoes
- Screen or spray the chicken house to minimize biting flies and mosquitoes.
- Apply insecticides such as Dudu dust to control fleas and mites.

NB: Do not vaccinate sick chicken





Vaccination of chicken against fowl pox using the wing-web stab

3. Infectious bursal disease (Gumboro)

This is a viral disease which affects 3 to 6 week old chicks. The disease weakens the immunity of chicken resulting in death. Chickens get the disease when they eat or drink contaminated feed or water.



Gumboro infected with depression, sleepiness and vent soiled with whitish diarrhoea

Sick chicks have:

- Watery whitish diarrhoea
- Soiled vent
- Swollen and protruding vent.

Control of infectious bursal disease

There is no treatment for infectious bursal disease (Gumboro). Farmers are advised to:

- Give multivitamins and antibiotics to contain bacterial infections.
- Vaccinate chicks at 14 days of age and repeat at 3 weeks of age.

4. Pullorum disease

Bacterial disease of chicken that causes swelling of the belly and whitish or yellow diarrhoea. It causes death in 1 to 3 week-old chicks. Chicks become sleepy and their vent is smeared with faeces. Chicks get the disease from infected hatched eggs.



A pullorum disease infected chick with watery yellow diarrhoea

Control of pullorum disease

Farmers are advised to:

- Treat the whole flock with antibiotics
- Dispose off hens that frequently hatch infected chicks

5. Fowl typhoid

This is a bacterial disease of adult chicken that causes fever, greenish diarrhoea, change of comb colour to blue, reduced egg production, swelling of joints, paralysis and death. Chicken get the disease after contact with contaminated air, water, feed or infected chicken.



Fowl typhoid infected chicken with green diarrhoea and swollen joints

Control of fowl typhoid

Farmers should:

- Separate sick chicken from the rest of the flock.
- Treat the whole flock with antibiotics



6. Chronic Respiratory disease (CRD)

This is a persistent disease of chicken affecting the parts of the body involved in breathing such as lungs and throat. It is seen mostly when chicken are stressed. Chicks hatched from infected eggs get the disease. The disease also spreads through contaminated air.



A CRD infected hen with nasal discharge and open mouth breathing

Sick chickens with CRD have:

- Nasal discharge
- Noisy breathing, sneezing and coughing
- Retarded growth
- Few deaths are observed when stress is persistent.

Control of chronic respiratory disease

- For an infected flock, farmers should:
 - Reduce stress by the provision of adequate feed and water and keep the chicken house clean.
 - Consult a veterinarian for appropriate treatment.

- Dispose all chicken.
- Thorough cleaning and disinfect the chicken house before introducing a new flock.
- Ensure that chicken are bought from known disease-free farms to prevent introduction of the disease to your farm.

Management of Parasitic and Nutritional Diseases in Chicken

Which are the common chicken parasites?

Parasites are either internal or external. external parasites are found on the skin and feathers of chicken while internal parasites are found in the intestine, liver, throat or other internal organs of chicken.

Which are the common chicken parasites?

External Parasites



Mite



Mite infestation on the face



Mite infestation on the leg



Lice



Lice infestation in chicken



Flea



Flea infestation in chicken

Internal parasites



Chicken tapeworms in the intestines



Chicken round worms in the intestines

Chicken with parasites have:

- Reduced growth
- Loss of feathers
- Weight loss
- Pecking and polishing of feathers
- Anaemia and death in young chicken
- Head stretching and shaking
- Noisy sounds from the throat
- Worms in droppings

1. Control of external parasites

- Clean and disinfect the chicken house regularly to avoid accumulation of dirt/manure.
- Isolate and treat any new birds with Sevin®/Duduthrin or ivermectin before mixing with the flock.

- Use acaricides like carbamates (Sevin® and Duduthrin) directly applied on chicken.
- Use spray acaricides (such as deltamethrin) repeatedly on poultry housing units and other breeding grounds if possible at weekly intervals to disrupt the life cycle of external parasites.
- Ivermectin for mites used as pour-on/drops to the skin in affected areas.



Application of poultry dudu dust for the control of external parasites in chicken

2. Prevention of internal parasites

- Avoid overcrowding of chicken i
- Provide clean and fresh water daily
- Keep a clean dry chicken house, don't allow accumulation of droppings
- Don't throw chicken feed on the ground or where it can be contaminated with infected droppings.
- Provide birds with adequate nutrition to boost their immunity.

3. Control of worms in chicken

- Deworm chicks at the age of 8 weeks and repeat at 3–6-month intervals.

- Use dewormers in drinking water following drug manufacturer instructions.
- Do not use the same dewormer frequently, instead use alternate 2-3 drugs to reduce drug resistance.

4. Coccidiosis

This is an intestinal parasitic disease that is common in overcrowded chicken houses with poor litter management that causes bloody or brownish diarrhoea, anaemia and death of chicken



Bloody diarrhoea from a coccidial infected chicken

Control of coccidiosis

- Regularly clean and disinfect chicken houses.
- Do not overcrowd the chicken house.
- Treat sick chicken with anticoccidial drugs



KCSAP



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A background image of several brown and white chickens, partially obscured by the text and the green border at the bottom.