



DEPARTMENT: AGRICULTURE

## Respiratory diseases in chickens



**M.S.K. Mashishi**

### What are respiratory diseases?

**Respiratory diseases affect the sinuses (an area in the head between the eyes and the beak) as well as the windpipe and lungs**

## What are the causes?

- Germs, such as bacteria, viruses and fungi
- Housing problems such as poor ventilation resulting in ammonia build-up, draughts and excessive dust

## What are the signs in live chickens?

- Difficult breathing
- Discharges from eyes and nostrils
- Sneezing
- Swollen sinuses

## What are the signs in dead chickens?

- ◆ The nasal passage and windpipe may be red on the inside or filled with mucous

## How do you confirm the disease?

- By a postmortem examination
- By laboratory tests

## What is the treatment?

- There are drugs available for treating respiratory diseases. Antibiotics such as tetracycline, quinilones and penicillins can be added to the feed or water. Most of these can only be bought with a prescription from a veterinarian although tetracyclines can be bought over the counter

## Prevention and control

- **Practise good biosecurity (measures to prevent diseases reaching the farm and causing production drop and/or mortalities)**
- **Where possible vaccinate against diseases such as Newcastle disease and infectious bronchitis**
- **Improve housing management**
- **Provide good quality feed**

## **Respiratory diseases caused by viruses**

Newcastle disease (NCD) Infectious bronchitis (IB) Infectious laryngotracheitis (ILT) Pox Pneumovirus
---

**These are viral diseases causing respiratory signs as well as other signs such as drop in egg production in layer chickens. Chickens can become sick when they come into contact with droppings of affected chickens or by breathing in infected droplets. The pox virus is spread by mosquito bites**

### ***Signs in live chickens***

**Discharge from the nostrils, difficult breathing, extended neck when breathing, sneezing, swollen sinuses and eye infection (conjunctivitis)**

### ***Signs in dead chickens***

**Red windpipe, mucous and plugs of pus in the windpipe and sinuses**

## ***Treatment***

**There is no treatment for viral diseases. Antibiotics such as tetracyclines can be used to treat secondary bacterial infections which can complicate the viral disease**

## ***Control and prevention***

- **Control movement of chickens in and out of the farm or yard**
- **Do not buy chickens from unreliable dealers. Buy day-old chicks that have been vaccinated against Newcastle disease**
- **Vaccinate all your chickens according to a vaccination programme**
- **Slaughter all chickens infected with NCD**
- **Cut down all the grass around the place where chickens are housed to limit mosquitoes**

## ***Respiratory diseases caused by bacteria***

### ***Mycoplasma gallisepticum (MG)***

***Mycoplasma gallisepticum* contributes to the respiratory disease complex in chickens. Chicks born from infected hens are infected in the egg. Chickens can also get the disease through contact with infected chickens. MG affects all types of chickens**

### ***Signs in live chickens***

**Discharge from the eyes and nostrils**

### ***Signs in dead chickens***

- **Airsacs are thickened, opaque and white with a yellowish white layer covering them**
- **The outer surface of the liver and heart is covered with a whitish layer**

### ***Treatment***

**Give antibiotics such as tylosin in the feed or water**

### ***Prevention***

- **Buy chickens that are free of MG**
- **Practise strict management measures on your farm**

### ***Infectious coryza(IC)***

**This is a bacterial disease affecting layers, breeders and broilers. The chickens get sick after contact with the bacteria, for example, in drinking water or by breathing. It results in swollen sinuses and a drop in egg production**

### ***Signs in live chickens***

**Swollen face, difficult and fast breathing, discharge from the nose and eyes as well as green diarrhoea**

### ***Signs in dead chickens***

**Swollen sinuses and sometimes a watery jelly layer under the skin covering the head**

### ***Treatment***

**Give potentiated sulphonamides in the water or tetracyclines in the feed to treat secondary bacterial**

**complications. Sulphonamide treatment may have to be repeated**

### ***Prevention***

◆ **There is a vaccine available. It must be given twice and should preferably contain the C3 strain**

### ***Respiratory disease caused by fungi***

#### ***Aspergillosis***

**Aspergillosis is an infection caused by fungi. Chicks are infected when they breathe in spores from the incubation machines at the hatchery and to a lesser extent from the environment, contaminated feed and litter. This infection is mostly seen in chickens kept in houses**

#### ***Signs in live chickens***

**Difficulty breathing, fast breathing and open-mouth breathing**

#### ***Signs in dead chickens***

**White areas in the lung**

#### ***Treatment***

**None**

#### ***Control***

- **Buy chicks from reputable dealers**

- **Avoid wet litter, mouldy and dusty feed**

**For further information consult your animal health technician, state or private veterinarian**

**or**

***Animal Health for Developing Farmers***  
**ARC-Onderstepoort Veterinary Institute**  
**Private Bag X05, Onderstepoort 0110**



**2001**

**Compiled by Directorate Communication, Department of Agriculture  
in cooperation with  
ARC-Onderstepoort Veterinary Institute**



**Printed and published by Department of Agriculture  
and obtainable from Resource Centre, Directorate Communication  
Private Bag X144, Pretoria 0001, South Africa**

---

**This publication is available on the web: [www.nda.agric.za/publications](http://www.nda.agric.za/publications)**



**Information provided by  
*Animal Health for Developing Farmers***

**ARC-Onderstepoort Veterinary Institute**  
**Private Bag X05, Onderstepoort 0110**  
**Tel. (012) 529 9158**

---

**Respiratory diseases**  
**in chickens**