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# **PRACTICAL APPROACHES FOR DIAGNOSIS AND TREATMENT OF POULTRY DISEASES**

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Presented at Poultry Training Workshop of 6<sup>th</sup>  
August 2014, University of Nairobi

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Parasitology



## Introduction

- The aim of this training workshop is to share our experiences with you
- Some of us here for about 40 years
- Lots of challenges
- Have made mistakes and corrected over the years
- Will be selfish if don't share with others



## ■ Expected outputs

- Increased capacity in poultry post-mortem examination
- improved ability to give proper diagnosis at high-precision
- Better equipped with various treatments for the diseases and challenges involved
- More enlightened on emerging and re-emerging poultry diseases



## To note

- Farmers do not keep chickens for fun
- Those in villages may be doing so as a hobby
- Even then, the chickens help them when in financial need
- Farmers want birds that are healthy and producing maximally



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# Layers



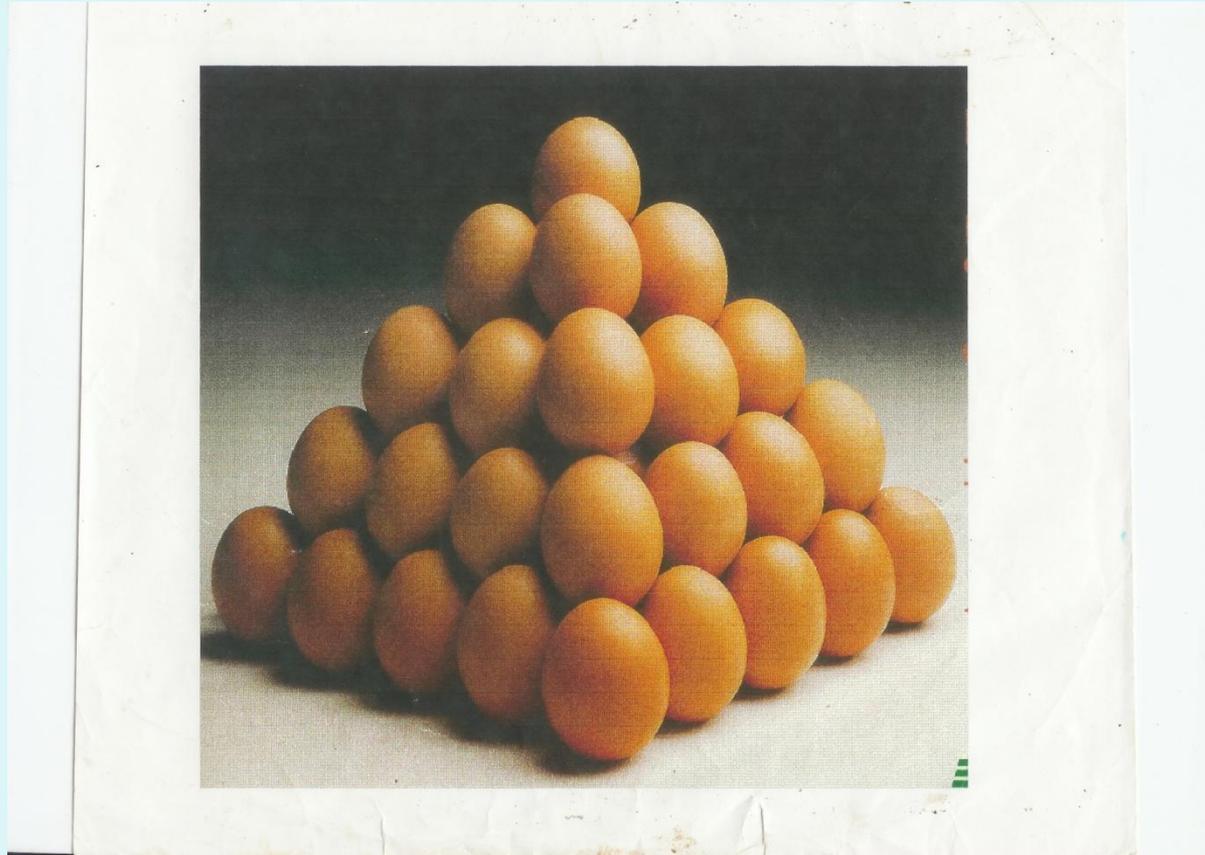
Poultry

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# Many eggs of good quality





## Layers (cont)

- Pullets that start laying at 20 weeks
- Layers that produce eggs well
  - 65% production should be lowest
  - The higher the better
- Hatched chicks should be healthy
  - >to produce healthy pullets
  - >otherwise stunted – take long to mature
- Pullets will not start laying until growth is complete



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# Broilers



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## Broilers (cont)

- Should be about 2 kgs at 8 weeks
- 1-1.5 kgs at 6 weeks
- Should produce quality meat
  - no blisters, etc, which will lead to condemnation at slaughter



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# Indigenous cocks





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# Indigenous hens





## Indigenous chicken (cont)

- That are big and healthy  
→ fetch good price
- Should produce many eggs
- Should produce healthy chicks
- Chicks survival rate to be high



## **For most of the farmers, by the time they consult a vet :**

- They have tried to treat the birds – all possible treatments
- They are defeated
- They are desperate – having lost many birds
- Production levels of the birds are very low
- Expect quick/instant solution from the vet – next to a miracle
- Having misused antibiotics, chances are that the disease-causing organisms are resistant to most drugs
- Therefore, don't be surprised if the subscribed treatment doesn't work
- Dr. Mbugua will give an account of usage of antibiotics in the field
- Prof. Mitema will cover various treatments and their challenges



## Expected vet's conduct

- Don't reprimand the farmer for coming/consulting too late
- Exercise patience and public relations
- Explain to him/her dangers of indiscriminate treatments
- Make him/her understand the disease/condition and how he/she can treat it and prevent future incidences



## Disease diagnosis

- A few diseases can be diagnosed to high precision easily, e.g. **Newcastle disease:**
  - high mortality of affected birds
  - greenish diarrhoea
  - on post-mortem examination, hemorrhages in various organs, especially the proventriculus and trachea



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# Hemorrhagic lesions in pro-ventriculus and trachea



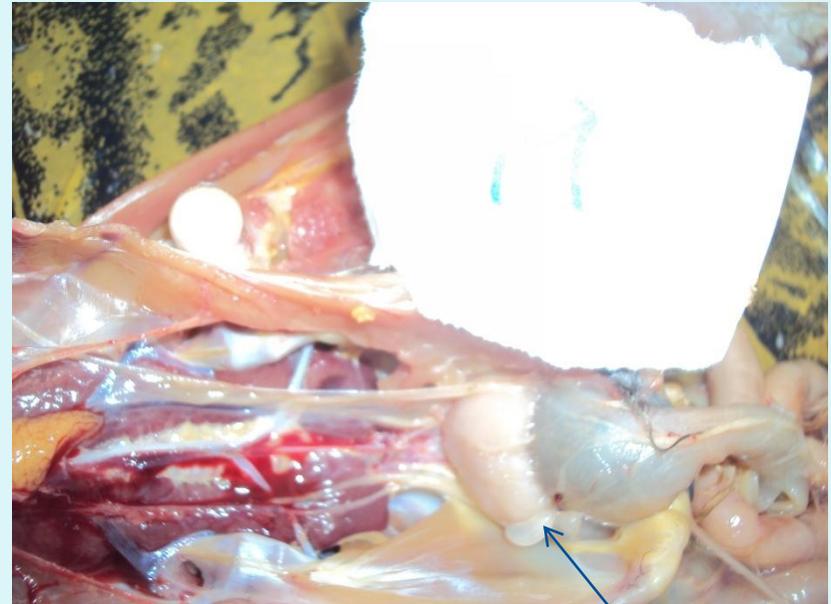
Another manifestation of Newcastle disease





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# Gumboro disease: hemorrhages and enlarged bursa





## Gumboro disease (cont)

- High mortality
- Hemorrhagic streaks on muscles
- Enlarged bursa of Fabricius
- Whitish diarrhoea

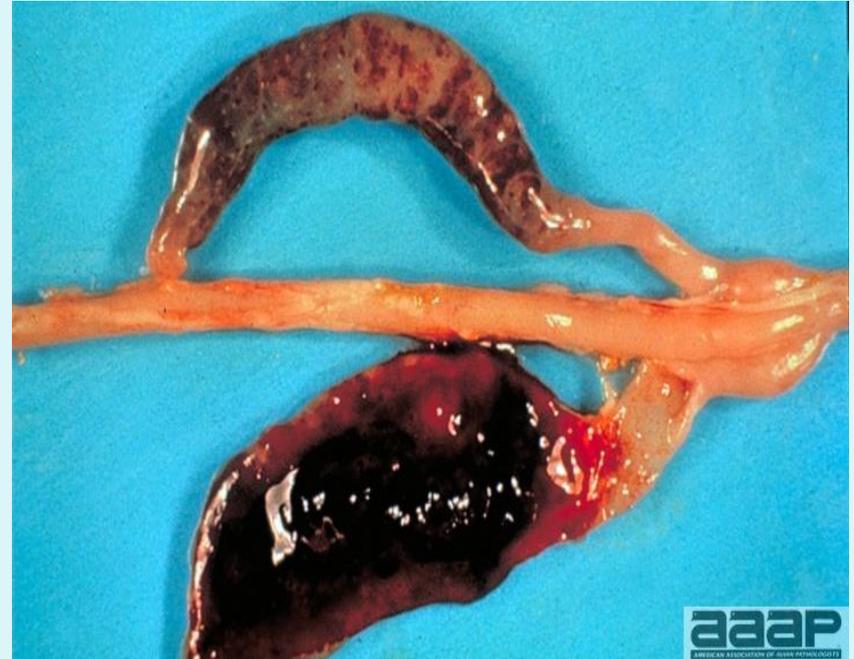


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# Coccidiosis; intestinal and cecal – hemorrhages (+ blood in feces)



Intestinal



Cecal

# Fowl Pox - pock lesions





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## Nutritional deficiencies



Curled toes



Leg paralysis



Star-gazing



Leg deformity



For most of the diseases the sick birds present the same

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## Disease diagnosis (cont)

- So, for most diseases, have to do PM – a major tool towards poultry disease diagnosis
- May then have to do laboratory diagnosis
  - bacteriology
  - virology
  - parasitology
  - histology
- For proper diagnosis, one needs to combine:
  - clinical history (signs)
  - pre-PM examination
  - PM examination
  - laboratory results
- Prof. Mbutia will cover this – “Diagnostic tree”



## Can do PM in the field

- Not always done in the laboratory
- When need be, can do in the field
- Need to exercise biosafety and biosecurity measures
- We did it at Rachuonyo with Prof. Ogara and Dr. Olwande



# PM in the field



poultry





- Sometimes we come across **interesting and challenging cases** – we will share a few with you (Drs. Kagunya, J.N. Kuria and Wilson Kuria)
- Prof. Nyaga will cover **Post-mortem techniques**
- Dr. Odongo will cover **Misdiagnosis of poultry diseases at necropsy**
- Drs. Lucy Njagi and Okumu will be involved in organising **Practical session** in the afternoon
- Dr. Gitao will co-ordinate session on **Technical overview and Discussion**
- Other colleagues in the department will help us in various other ways



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THANK YOU